

11/24/1996

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10/593972

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NEWS 4 MAR 20 MARPAT now updated daily
NEWS 5 MAR 22 LWPI reloaded
NEWS 6 MAR 30 RDISCLOSURE reloaded with enhancements
NEWS 7 APR 02 JICST-EPLUS removed from database clusters and STN
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NEWS 9 APR 30 CHEMCATS enhanced with 1.2 million new records
NEWS 10 APR 30 CA/CAPplus enhanced with 1870-1889 U.S. patent records
NEWS 11 APR 30 INPADOC replaced by INPADOCDB on STN
NEWS 12 MAY 01 New CAS web site launched
NEWS 13 MAY 08 CA/CAPplus Indian patent publication number format defined
NEWS 14 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS 15 MAY 21 BIOSIS reloaded and enhanced with archival data
NEWS 16 MAY 21 TOXCENTER enhanced with BIOSIS reload
NEWS 17 MAY 21 CA/CAPplus enhanced with additional kind codes for German patents
NEWS 18 MAY 22 CA/CAPplus enhanced with IPC reclassification in Japanese patents
NEWS 19 JUN 27 CA/CAPplus enhanced with pre-1967 CAS Registry Numbers
NEWS 20 JUN 29 STN Viewer now available
NEWS 21 JUN 29 STN Express, Version 8.2, now available
NEWS 22 JUL 02 LEMBASE coverage updated
NEWS 23 JUL 02 LMEDLINE coverage updated
NEWS 24 JUL 02 SCISEARCH enhanced with complete author names
NEWS 25 JUL 02 CHEMCATS accession numbers revised
NEWS 26 JUL 02 CA/CAPplus enhanced with utility model patents from China
NEWS 27 JUL 16 CAPplus enhanced with French and German abstracts
NEWS 28 JUL 18 CA/CAPplus patent coverage enhanced
NEWS 29 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

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11/245136

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 18:01:00 ON 26 JUL 2007

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 18:01:15 ON 26 JUL 2007

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FILE COVERS 1907 - 26 Jul 2007 VOL 147 ISS 5

FILE LAST UPDATED: 25 Jul 2007 (20070725/ED)

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=> e wo-2005091072/pn

E1 1 WO2005091070/PN

E2 1 WO2005091071/PN

E3 1 --> WO2005091072/PN

E4 1 WO2005091073/PN

E5 1 WO2005091074/PN

E6 1 WO2005091075/PN

E7 1 WO2005091078/PN

E8 1 WO2005091079/PN

E9 1 WO2005091080/PN

E10 1 WO2005091081/PN

E11 1 WO2005091082/PN

E12 1 WO2005091099/PN

=> s e3;d all

L1 1 WO2005091072/PN
(WO2005091072/PN)

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1049904 CAPLUS

DN 143:356608

ED Entered STN: 30 Sep 2005

TI Negative radiation-sensitive resin composition

IN Nishikawa, Kouji; Kimura, Tooru; Iwanaga, Shinichiro

PA JSR Corporation, Japan

11/245136

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM G03F007-033

ICS G03F007-004; G03F007-40; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 56, 76

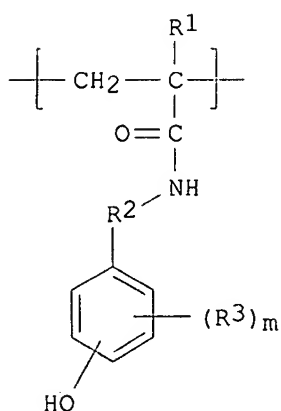
FAN.CNT 1

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	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	JP 2005274920	A	20051006	JP 2004-87521	20040324
	EP 1746461	A1	20070124	EP 2005-726999	20050324
	R:	DE, FR, GB, IT			
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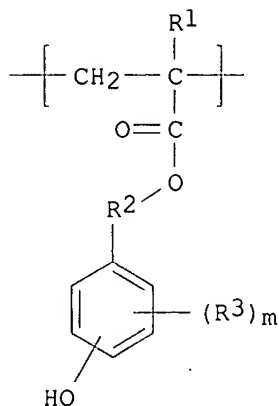
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005091072	ICM	G03F007-033
	ICS	G03F007-004; G03F007-40; H01L021-027
	IPCI	G03F0007-033 [ICM,7]; G03F0007-004 [ICS,7]; G03F0007-40 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]
	IPCR	C08F0020-00 [I,C*]; C08F0020-18 [I,A]; C08F0020-58 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-40 [I,C*]; G03F0007-40 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
JP 2005274920	ECLA	G03F007/033; G03F007/40
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	IPCR	C08F0020-00 [I,C*]; C08F0020-18 [I,A]; C08F0020-58 [I,A]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-033 [I,A]; G03F0007-033 [I,C*]; G03F0007-40 [I,A]; G03F0007-40 [I,C*]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
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[I,C*]; C08F0020-18 [I,A]; C08F0020-58 [I,A];
 G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-40
 [I,C]; G03F0007-40 [I,A]; H01L0021-02 [I,C];
 H01L0021-027 [I,A]
 ECLA G03F007/033; G03F007/40
 CN 1934497 IPCI G03F0007-033 [I,A]; G03F0007-004 [I,A]; G03F0007-40
 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
 ECLA G03F007/033; G03F007/40
 GI



I



II

AB The invention relates to a process for forming with high precision a thick electroplating shaped item, such as bump or wiring; a neg. radiation-sensitive resin composition excelling in sensitivity, resolving power, etc. that is suitable to the process; and a transfer film utilizing this composition There is provided a neg. radiation-sensitive resin composition

comprising (A) polymer containing structural units represented by the following general formula I and/or II (R1 = H, methyl; R2 = -(CH2)n-; n = integer 0-30; R3 = C1-4 alkyl; m = integer 0-4), (B) compound having at least one ethylenically unsatd. double bond and (C) radiation-sensitive radical polymerization initiator. Further, there is provided production of a

neg.

radiation-sensitive resin film from this composition

ST neg radiation resin compn photoresist

IT Photoresists

(dry-film; neg. radiation-sensitive resin composition)

IT Electrodeposition

Negative photoresists

(neg. radiation-sensitive resin composition)

IT 865783-27-3P 865783-28-4P 865783-29-5P 865783-30-8P 865783-31-9P
 865783-33-1P, N-(3,5-Dimethylbenzyl)acrylamide-p-isopropenylphenol-
 methacrylic acid-butyl acrylate-Isobornyl methacrylate copolymer
 865783-34-2P 865783-35-3P 865783-36-4P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)

(resin in neg. radiation-sensitive resin composition)

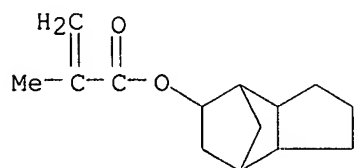
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Jsr Corp; JP 200039709 A 2000
- (2) Konica Corp; JP 08-179505 A 1996 CAPLUS
- (3) Mitsubishi Chemical Corp; EP 1384938 A 2002

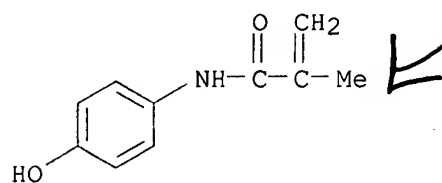
11/245136

CRN 34759-34-7
CMF C14 H20 O2



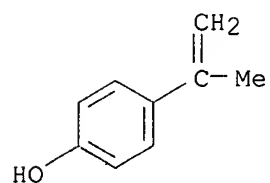
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CRN 19243-95-9
CMF C10 H11 N O2



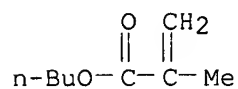
CM 3

CRN 4286-23-1
CMF C9 H10 O



CM 4

CRN 97-88-1
CMF C8 H14 O2



CM 5

CRN 79-41-4
CMF C4 H6 O2

11/245136

(4) Mitsubishi Chemical Corp; JP 2002214780 A 2002 CAPLUS
(5) Mitsubishi Chemical Corp; US 2004108009 A 2002
(6) Mitsubishi Chemical Corp; CA 2435838 A 2002
(7) Okamoto Kagaku Kogyo Kabushiki Kaisha; JP 07-5684 A 1995 CAPLUS

=> file reg

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
7.06	7.27

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
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predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
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<http://www.cas.org/support/stngen/stndoc/properties.html>

=> s 865783-27-3

L2 1 865783-27-3
(865783-27-3/RN)

=> d

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 865783-27-3 REGISTRY

ED Entered STN: 21 Oct 2005

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate,
N-(4-hydroxyphenyl)-2-methyl-2-propenamide, 4-(1-methylethenyl)phenol and
octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate (CA INDEX NAME)

OTHER NAMES:

CN p-Isopropenylphenol-N-(p-hydroxyphenyl)methacrylamide-methacrylic
acid-butyl methacrylate-tricyclo[5.2.1.02,6]decanyl-8-ol methacrylate
copolymer

MF (C14 H20 O2 . C10 H11 N O2 . C9 H10 O . C8 H14 O2 . C4 H6 O2)x

CI PMS

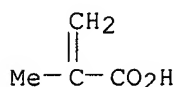
PCT Polyacrylic, Polystyrene

SR CA

LC STN Files: CA, CAPLUS

CM 1

11/245136



4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.40	9.67
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-0.78

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STRUCTURE FILE UPDATES: 25 JUL 2007 HIGHEST RN 943407-83-8
DICTIONARY FILE UPDATES: 25 JUL 2007 HIGHEST RN 943407-83-8

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> S 19243-95-9/RN

L3 1 19243-95-9/RN

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NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L3 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.55 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN 19243-95-9 REGISTRY
CN 2-Propenamide, N-(4-hydroxyphenyl)-2-methyl- (CA INDEX NAME)

11/245136

OTHER CA INDEX NAMES:

CN Acrylanilide, 4'-hydroxy-2-methyl- (7CI, 8CI)

OTHER NAMES:

CN N-(4-Hydroxyphenyl)methacrylamide

CN N-(p-Hydroxyphenyl)methacrylamide

CN p-Hydroxymethacrylanilide

CN p-Methacrylamidophenol

DR 172599-77-8, 142570-51-2

MF C10 H11 N O2

CI COM

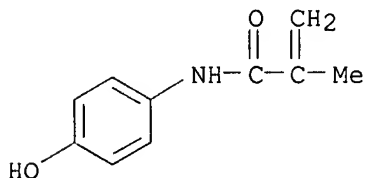
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, IFICDB, IFIUDB, RTECS*, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

DT.CA CAPLUS document type: Journal; Patent

RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

58 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

58 REFERENCES IN FILE CAPLUS (1907 TO DATE)

2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

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=> s 865783-28-4

L4 1 865783-28-4
(865783-28-4/RN)

=> d

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 865783-28-4 REGISTRY

ED Entered STN: 21 Oct 2005

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, N-(4-hydroxyphenyl)-2-methyl-2-propenamide and octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

MF (C14 H20 O2 . C10 H11 N O2 . C8 H14 O2 . C4 H6 O2)x

CI PMS

PCT Polyacrylic

SR CA

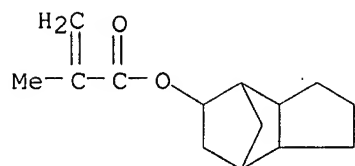
LC STN Files: CA, CAPLUS

11/245136

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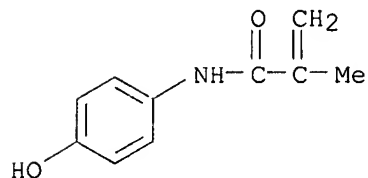
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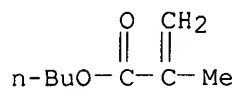
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CM 3

CRN 97-88-1

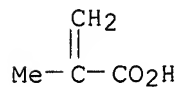
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CM 4

CRN 79-41-4

CMF C4 H6 O2



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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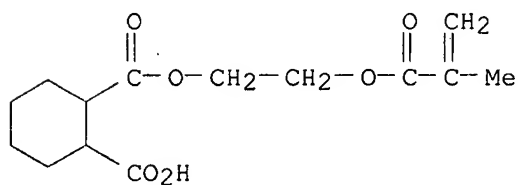
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11/245136

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN 865783-29-5 REGISTRY
ED Entered STN: 21 Oct 2005
CN 1,2-Cyclohexanedicarboxylic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with butyl 2-methyl-2-propenoate, N-(4-hydroxyphenyl)-2-methyl-2-propenamide, 4-(1-methylethenyl)phenol and octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
MF (C14 H20 O6 . C14 H20 O2 . C10 H11 N O2 .. C9 H10 O . C8 H14 O2)x
CI PMS
PCT Polyacrylic, Polystyrene
SR CA
LC STN Files: CA, CAPLUS

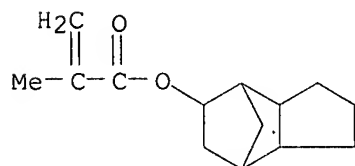
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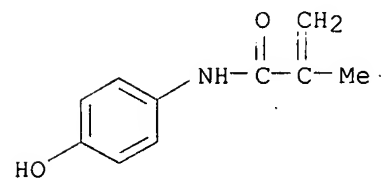
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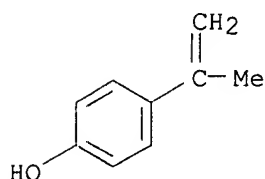
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CMF C10 H11 N O2



CM 4

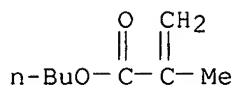
11/245136

CRN 4286-23-1
CMF C9 H10 O



CM 5

CRN 97-88-1
CMF C8 H14 O2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

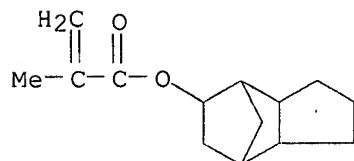
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(865783-30-8/RN)

=> d

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN 865783-30-8 REGISTRY
ED Entered STN: 21 Oct 2005
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
N-(4-hydroxyphenyl)-2-methyl-2-propenamide, 4-(1-methylethenyl)phenol and
octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate (9CI) (CA INDEX
NAME)
MF (C14 H20 O2 . C10 H11 N O2 . C9 H10 O . C7 H12 O2 . C4 H6 O2)x
CI PMS
PCT Polyacrylic, Polystyrene
SR CA
LC STN Files: CA, CAPLUS

CM 1

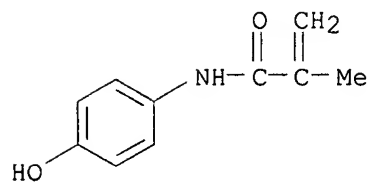
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CMF C14 H20 O2



CM 2

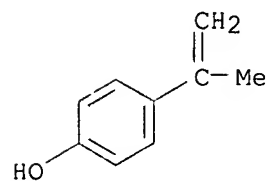
11/245136

CRN 19243-95-9
CMF C10 H11 N O2



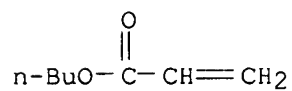
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CRN 4286-23-1
CMF C9 H10 O



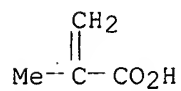
CM 4

CRN 141-32-2
CMF C7 H12 O2



CM 5

CRN 79-41-4
CMF C4 H6 O2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 865783-31-9
L7 1 865783-31-9
(865783-31-9/RN)

=> d

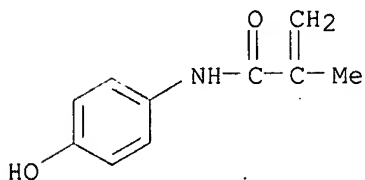
L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

11/245136

RN 865783-31-9 REGISTRY
ED Entered STN: 21 Oct 2005
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate,
N-(4-hydroxyphenyl)-2-methyl-2-propenamide, 4-(1-methylethenyl)phenol and
rel-(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-
propenoate (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF (C14 H22 O2 . C10 H11 N O2 . C9 H10 O . C8 H14 O2 . C4 H6 O2)x
CI PMS
PCT Polyacrylic, Polystyrene
SR CA
LC STN Files: CA, CAPLUS

CM 1

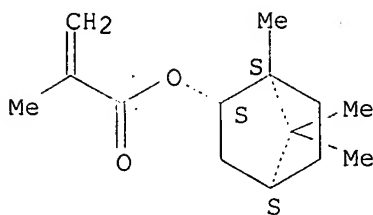
CRN 19243-95-9
CMF C10 H11 N O2



CM 2

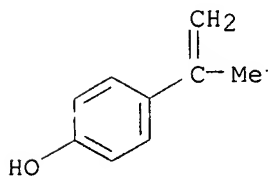
CRN 7534-94-3
CMF C14 H22 O2

Relative stereochemistry.



CM 3

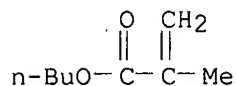
CRN 4286-23-1
CMF C9 H10 O



CM 4

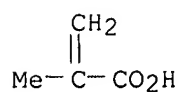
11/245136

CRN 97-88-1
CMF C8 H14 O2



CM 5

CRN 79-41-4
CMF C4 H6 O2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

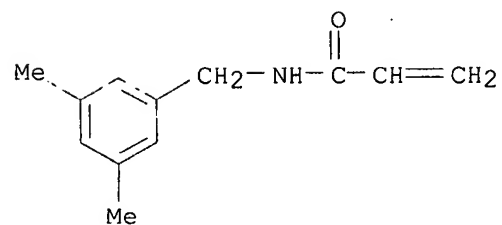
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L8 1 865783-34-2
(865783-34-2/RN)

=> d

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN 865783-34-2 REGISTRY
ED Entered STN: 21 Oct 2005
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
N-[(3,5-dimethylphenyl)methyl]-2-propenamide and rel-(1R,2R,4R)-1,7,7-
trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX
NAME)
FS STEREOSEARCH
MF (C14 H22 O2 . C12 H15 N O . C7 H12 O2 . C4 H6 O2)x
CI PMS
PCT Polyacrylic
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 865783-32-0
CMF C12 H15 N O

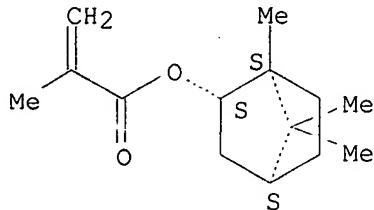


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11/245136

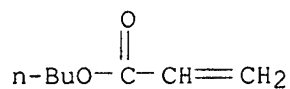
CRN 7534-94-3
CMF C14 H22 O2

Relative stereochemistry.



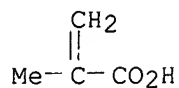
CM 3

CRN 141-32-2
CMF C7 H12 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 865783-35-3 or 865783-36-4
1 865783-35-3
(865783-35-3/RN)
1 865783-36-4
(865783-36-4/RN)
L9 2 865783-35-3 OR 865783-36-4

=> d 1-2

L9 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2007 ACS on STN
RN 865783-36-4 REGISTRY
ED Entered STN: 21 Oct 2005
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate,
N-(4-hydroxyphenyl)-2-methyl-2-propenamide and octahydro-4,7-methano-1H-
inden-5-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
MF (C14 H20 O2 . C10 H11 N O2 . C7 H12 O2 . C4 H6 O2)x
CI PMS
PCT Polyacrylic
SR CA

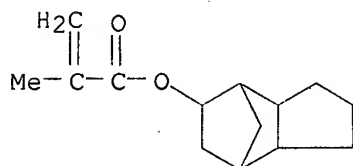
11/245136

LC STN Files: CA, CAPLUS

CM 1

CRN 34759-34-7

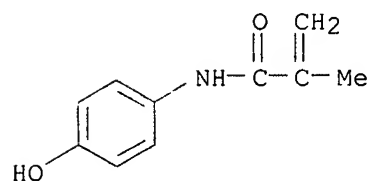
CMF C14 H20 O2



CM 2

CRN 19243-95-9

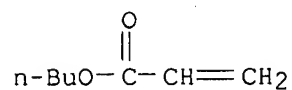
CMF C10 H11 N O2



CM 3

CRN 141-32-2

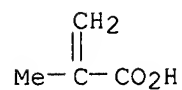
CMF C7 H12 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L9 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2007 ACS on STN

RN 865783-35-3 REGISTRY

ED Entered STN: 21 Oct 2005

CN 2-Propenoic acid, 2-methyl-, octahydro-4,7-methano-1H-inden-5-yl ester,
polymer with butyl 2-propenoate and N-(4-hydroxyphenyl)-2-methyl-2-

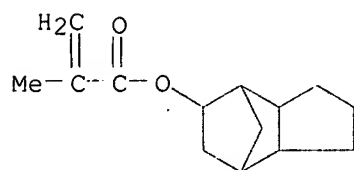
11/245136

propenamide (9CI) (CA INDEX NAME)
MF (C14 H20 O2 . C10 H11 N O2 . C7 H12 O2)x
CI PMS
PCT Polyacrylic
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 34759-34-7

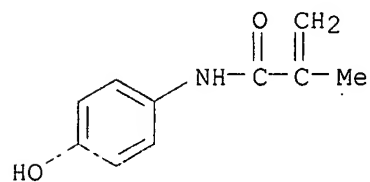
CMF C14 H20 O2



CM 2

CRN 19243-95-9

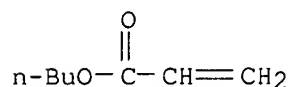
CMF C10 H11 N O2



CM 3

CRN 141-32-2

CMF C7 H12 O2



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d his

(FILE 'HOME' ENTERED AT 18:01:00 ON 26 JUL 2007)

FILE 'CAPLUS' ENTERED AT 18:01:15 ON 26 JUL 2007

E WO-2005091072/PN

L1 1 S E3

FILE 'REGISTRY' ENTERED AT 18:03:50 ON 26 JUL 2007

L2 1 S 865783-27-3

11/245136

FILE 'REGISTRY' ENTERED AT 18:04:24 ON 26 JUL 2007

L3 1 S 19243-95-9/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY
L4 1 S 865783-28-4
L5 1 S 865783-29-5
L6 1 S 865783-30-8
L7 1 S 865783-31-9
L8 1 S 865783-34-2
L9 2 S 865783-35-3 OR 865783-36-4

=> S 19243-95-9crn
L10 0 19243-95-9CRN

=> S 19243-95-9/crn
L11 372 19243-95-9/CRN

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
22.80	32.47

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-0.78

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FILE LAST UPDATED: 25 Jul 2007 (20070725/ED)

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=> s l11
L12 503 L11

=> s l12 and photo?
1505001 PHOTO?
L13 452 L12 AND PHOTO?

=> s l13 and negativ?
91577 NEGATIV?
L14 39 L13 AND NEGATIV?

=> d all 1-39

11/245136

L14 ANSWER 1 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:356592 CAPLUS
DN 146:368744
ED Entered STN: 30 Mar 2007
TI Negative-working photosensitive resin composition for
forming two layer-structure film for forming bump contacts
IN Yokoyama, Kenichi; Sakai, Yoko; Hasegawa, Satomi; Ota, Suguru; Iwanaga,
Shinichiro
PA JSR Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 36pp.
CODEN: JKXXAF
DT Patent
LA Japanese
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 35, 76

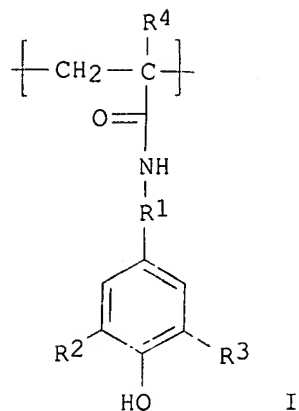
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007079550	A	20070329	JP 2006-182282	20060630
PRAI	JP 2005-238795	A	20050819		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2007079550	IPCI	G03F0007-11 [I,A]; G03F0007-004 [I,A]; G03F0007-40 [I,A]; H01L0021-027 [I,A]; H05K0003-34 [I,A]; H01L0021-60 [I,A]; H01L0021-02 [I,C*]
	FTERM	2H025/AA03; 2H025/AA04; 2H025/AA16; 2H025/AB11; 2H025/AB15; 2H025/AB17; 2H025/AC01; 2H025/AD01; 2H025/BC13; 2H025/BC42; 2H025/CA00; 2H025/CB43; 2H025/CB45; 2H025/CB60; 2H025/CC03; 2H025/CC05; 2H025/DA35; 2H025/DA40; 2H025/FA17; 2H025/FA43; 2H096/AA26; 2H096/AA27; 2H096/BA05; 2H096/CA05; 2H096/EA02; 2H096/GA08; 2H096/HA27; 5E319/AA03; 5E319/AB05; 5E319/BB05; 5E319/CC33; 5E319/CD04; 5E319/CD26; 5E319/GG15

GI



AB Title composition contains a polymer having repeating unit I (R1 = -(CH2)n-; n = integer 1-3; R2-4 = H, C1-4 alkyl), an organic solvent, and compound R1O-[-(CH2)p-O-]m-[-(CH2)q-O-]n-R2 (p, q = 2,3; m, n = integer ≥0 with 3<m=n≤12; R1-2 = H, organic group). The composition provides good

11/245136

characteristics such as good solder pattern formation and easy removal from a substrate.

ST neg photosensitive resin compn bump contact solder

IT Alcohols, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(C12-14-secondary, ethoxylated; neg.-working photosensitive resin composition for forming two layer-structure film for forming bump contacts)

IT Bump contacts
(neg.-working photosensitive resin composition for forming two layer-structure film for forming bump contacts)

IT Photoimaging materials
(photopolymerizable; neg.-working photosensitive resin composition for forming two layer-structure film for forming bump contacts)

IT 863455-99-6P, N-(4-Hydroxy-3,5-dimethylbenzyl)acrylamide-styrene-2-hydroxyethyl acrylate copolymer 926636-49-9P, N-(4-Hydroxy-3,5-dimethylbenzyl)acrylamide-styrene-2-hydroxyethyl acrylate-butyl acrylate copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(neg.-working photosensitive resin composition for forming two layer-structure film for forming bump contacts)

IT 24991-55-7, Uniox MM 500 865783-27-3, p-Isopropenylphenol-N-(p-Hydroxyphenyl)methacrylamide-methacrylic acid-butyl methacrylate-Tricyclo[5.2.1.0^{2,6}]decanyl-8-ol methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(neg.-working photosensitive resin composition for forming two layer-structure film for forming bump contacts)

IT 97-64-3, Ethyl 2-hydroxypropionate 1320-67-8, Propylene glycol monomethyl ether
RL: NUU (Other use, unclassified); USES (Uses)
(organic solvent; neg.-working photosensitive resin composition for forming two layer-structure film for forming bump contacts)

L14 ANSWER 2 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:223668 CAPLUS

DN 146:286024

ED Entered STN: 01 Mar 2007

TI Radiation-nonsensitive compositions for forming lower layers of bilayered resist films for forming bumps, formation of bumps on electrode pads of wiring boards, and transfer films comprising the resist films

IN Yokoyama, Kenichi; Sakai, Yoko; Hasegawa, Satomi; Ota, Masaru; Iwanaga, Shinichiro

PA Jsr Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 40pp.

CODEN: JKXXAF

DT Patent

LA Japanese

CC 76-3 (Electric Phenomena)

Section cross-reference(s): 38, 74

FAN.CNT 1

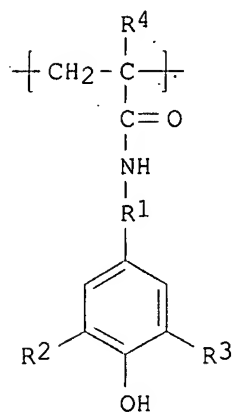
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007052351	A	20070301	JP 2005-238794	20050819
PRAI	JP 2005-238794		20050819		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2007052351	IPCI	G03F0007-11 [I,A]; H01L0021-60 [I,A]; H01L0021-02 [I,C*]; G03F0007-26 [I,A]; G03F0007-004 [I,A]; G03F0007-40 [I,A]
	FTERM	2H025/AA03; 2H025/AA10; 2H025/AA16; 2H025/AB11;

2H025/AB17; 2H025/AC01; 2H025/AD01; 2H025/BC13;
 2H025/BC42; 2H025/BJ09; 2H025/CA00; 2H025/CB14;
 2H025/CB15; 2H025/CB43; 2H025/CB45; 2H025/CC03;
 2H025/DA11; 2H025/FA43; 2H025/FA47; 2H096/AA25;
 2H096/AA26; 2H096/AA27; 2H096/BA05; 2H096/EA02;
 2H096/GA08; 2H096/HA27; 2H096/KA04; 2H096/KA05

GI



- AB Title compns. contain (A) polymers having structural units I [R1 = (CH2)n; n = 0-3; R2-4 = H, C1-4 alkyl], [CH2C(R5)(CO2R6)] [II; R5 = H, Me; R6 = (methoxy- or ethoxy-substituted) C2-12 straight-chain or branched alkyl], and [CH2C(R7)(CO2R8OH)] [III; R7 = H, Me; R8 = C2-6 straight-chain or branched alkylene] (the sum of II and III occupy 30-80 weight% of polymers), and (B) organic solvents. Title bilayered resist films consist of the lower layers (showing no photosensitivity but solubility in alkaline developers), and neg. photoresist upper layers. Formation process of title bumps includes steps of (1) forming the bilayered resist films on substrates, and forming hole patterns in the films at a position corresponding to that of electrode pad, (2) introducing low-m.p. metals into the holes, (3) reflow heating the metals in order to form bumps, and (4) stripping the resist films off the substrates. In the process, the order of 2 and 3 may be opposite. The lower layers impart easy stripping characteristics to the resist films upon contact with alkaline developers without remaining residues.
- ST neg resist film undercoat acrylate acrylamide copolymer; elec contact bump formation resist undercoat acrylic copolymer; transfer film neg resist undercoat layer alkali developer soluble
- IT Bump contacts
 Transfers
 (bilayered resist film having lower photo-nonsensitive layer and upper neg. resist layer for forming bumps)
- IT Negative photoresists
 (bilayered; bilayered resist film having lower photo-nonsensitive layer and upper neg. resist layer for forming bumps)
- IT 3290-92-4, Light Ester TMP 15625-89-5, Aronix M 309
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (crosslinking agent for upper neg. resist layer; bilayered resist film having lower photo-nonsensitive layer and upper neg. resist layer for forming bumps)
- IT 865783-27-3P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM

(Technical or engineered material use); PREP (Preparation); USES (Uses)
 (in upper neg. resist layer; bilayered resist film having lower
 photo-nonsensitive layer and upper neg. resist layer for
 forming bumps)

IT 926636-48-8P 926636-49-9P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (lower layer; bilayered resist film having lower photo
 -nonsensitive layer and upper neg. resist layer for forming bumps)

IT 7189-83-5, 2,2'-Bis (2,4-dichlorophenyl)-4,5,4',5'-tetraphenyl-1,2'-
 biimidazole 24650-42-8, Irgacure 651 75980-60-8, Lucirin TPO
 RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES
 (Uses)
 (photopolymn. catalyst for upper neg. resist layer; bilayered
 resist film having lower photo-nonsensitive layer and upper
 neg. resist layer for forming bumps)

IT 1320-67-8, Propylene glycol monomethyl ether
 RL: TEM (Technical or engineered material use); USES (Uses)
 (solvent for forming lower layer; bilayered resist film having lower
 photo-nonsensitive layer and upper neg. resist layer for
 forming bumps)

IT 97-64-3, Ethyl 2-hydroxypropionate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (solvent for upper neg. resist layer; bilayered resist film having
 lower photo-nonsensitive layer and upper neg. resist layer
 for forming bumps)

L14 ANSWER 3 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2006:1092717 CAPLUS
 DN 145:429422
 ED Entered STN: 19 Oct 2006
 TI Negative-working radiation-sensitive resin composition, transfer
 film, and manufacturing method of plated product
 IN Onimaru, Nami; Nishimura, Yoko; Ota, Suguru; Iwanaga, Shinichiro
 PA JSR Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 20pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006285035	A	20061019	JP 2005-106594	20050401
PRAI	JP 2005-106594		20050401		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2006285035	IPCI	G03F0007-033 [I,A]; H01L0021-60 [I,A]; H01L0023-52 [I,A]; H01L0021-3205 [I,A]; H01L0021-02 [I,C*]; C08F0267-10 [N,A]; C08F0267-00 [N,C*]; H05K0003-18 [N,A]
	IPCR	G03F0007-033 [I,C]; G03F0007-033 [I,A]; C08F0267-00 [N,C]; C08F0267-10 [N,A]; H01L0021-02 [I,C]; H01L0021-3205 [I,A]; H01L0021-60 [I,A]; H01L0023-52 [I,C]; H01L0023-52 [I,A]; H05K0003-18 [N,C]; H05K0003-18 [N,A]
	FTERM	2H025/AA01; 2H025/AA02; 2H025/AB16; 2H025/AC01; 2H025/AD01; 2H025/BA02; 2H025/BC13; 2H025/BC42; 2H025/CA00; 2H025/CB13; 2H025/CB14; 2H025/CB15; 2H025/CB41; 2H025/CC03; 2H025/EA08; 2H025/FA17;

2H025/FA43; 4J026/AA50; 4J026/BA27; 4J026/BA28;
 4J026/BA30; 4J026/BA31; 4J026/BA32; 4J026/BA36;
 4J026/DB36; 4J026/FA05; 4J026/GA07; 4J026/GA08;
 5E343/AA22; 5E343/BB24; 5E343/BB71; 5E343/CC63;
 5E343/CC65; 5E343/DD32; 5E343/ER22; 5E343/ER26;
 5E343/FF16; 5E343/GG08; 5F033/HH13; 5F033/MM05;
 5F033/MM13; 5F033/QQ27; 5F033/QQ30; 5F033/VV07

AB The composition contains (a) a polymer with a structural unit CH₂CR₁(CONR₂R₃) (R₁ = H, Me; R₂, R₃ = H, C₁-4 aliphatic hydrocarbon, C₃-20 alicyclic hydrocarbon, these may be substituted with polar group), (b) a compound with ≥ 1 ethylenically unsatd. double bond, and (c) a radiation-sensitive radical polymerization initiator. The film having a resin layer made of the composition is also claimed. The method for manufacture the plated product

(e.g.,

bump) comprises processes for (1) forming the resin layer on a wafer with a barrier metal layer, (2) forming a pattern by exposing the resin layer to light and then developing it, (3) depositing an electrode material by electrolytic plating using the pattern as a template, and (4) removing the barrier metal by etching after peeling the residual resin layer. The composition shows improved resolving power, adhesiveness, and heat resistance, providing precise patterns.

ST neg photoresist acrylamide polymer ethylenic compd; electrolytic plating bump manuf photosensitive resin pattern

IT Electrodeposition

(neg.-working photoresist containing acrylamide copolymer, ethylenic compound and polymerization initiator for electrolytic plating

pattern

formation)

IT Resists

(neg.-working radiation-sensitive; neg.-working photoresist containing acrylamide copolymer, ethylenic compound and polymerization

initiator for

electrolytic plating pattern formation)

IT 912549-47-4P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(neg.-working photoresist containing acrylamide copolymer, ethylenic compound and polymerization initiator for electrolytic plating

pattern

formation)

IT 53879-54-2, Aronix M 320 92679-62-4, Aronix M 8100 912549-48-5

912549-49-6 912549-50-9 912549-51-0

RL: TEM (Technical or engineered material use); USES (Uses)

(neg.-working photoresist containing acrylamide copolymer, ethylenic compound and polymerization initiator for electrolytic plating

pattern

formation)

L14 ANSWER 4 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:534488 CAPLUS

DN 145:19039

ED Entered STN: 08 Jun 2006

TI Radiation-sensitive resists; resist films and transfer films both made from same, and manufacture of electroplated electrically conductive metal structures by using patterned resists as templates

IN Yokoyama, Kenichi; Nishikawa, Koji; Iwanaga, Shinichiro

PA Jsr Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 38, 74

11/245136

FAN.CNT 1

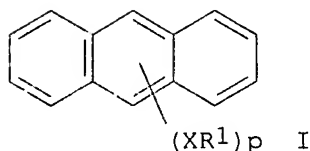
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2006145853	A	20060608	JP 2004-336055	20041119
PRAI JP 2004-336055		20041119		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2006145853	IPCI	G03F0007-004 [I,A]; G03F0007-039 [I,A]; G03F0007-20 [I,A]; H05K0003-18 [I,A]
	FTERM	2H025/AA01; 2H025/AA02; 2H025/AA17; 2H025/AB11; 2H025/AB16; 2H025/AC01; 2H025/AD01; 2H025/AD03; 2H025/BE00; 2H025/BE07; 2H025/BE10; 2H025/BG00; 2H025/CA41; 2H025/CB10; 2H025/CB13; 2H025/CB14; 2H025/CB16; 2H025/CB17; 2H025/CB43; 2H025/CB45; 2H025/CC13; 2H025/CC20; 2H025/FA17; 2H025/FA35; 2H025/FA39; 2H025/FA43; 2H025/FA48; 2H097/FA02; 2H097/LA09; 5E343/AA22; 5E343/BB24; 5E343/BB38; 5E343/BB71; 5E343/CC62; 5E343/DD43; 5E343/DD56; 5E343/DD76; 5E343/EE36; 5E343/ER12; 5E343/ER18; 5E343/ER26; 5E343/GG08

OS MARPAT 145:19039

GI



- AB The resists contain (A) 0.1-20 weight parts of anthracene derivs. I [p = 1-10; R1 = H, C1-8 (substituted) alkyl, C3-20 (substituted) alicyclic group, C2-4 alkenyl, etc.; ≥2 of R1 may form ring (containing hetero atoms); X = direct bond, O, S, CO, N(R'), etc.; R' = H, C1-8 (substituted) alkyl, C3-20 (substituted) alicyclic group, etc.; ≥2 of R' may form ring], (B) 0.1-20 weight parts of photoacid generators, and (C) 100 weight parts of polymers, and show sensitivity for 300-450 nm radiation. Also claimed are pos.-working above resists containing polymers bearing acid-labile groups as C. Also claimed are neg.-working above resists containing alkali-soluble polymers as C, and crosslinking agents capable of reaction with the alkali-soluble polymers under the presence of acids. In manufacture of elec. conductive metal structures (e.g., bumps and wirings of circuits), electroplating of the metal is carried out on patterned resists used as templates. The resists, sensitive for both i-line and g-line, provide patterns with good profile.
- ST UV resist anthracene sensitizer; pos UV resist anthracene sensitizer; neg UV resist anthracene sensitizer; elec circuit conductor metal electroplating UV photoresist
- IT Electrodeposition
(UV resists containing anthracene sensitizers, transfer films, and electroplating of conductor metals on patterned resists)
- IT Negative photoresists
Photoresists
Positive photoresists
(UV; UV resists containing anthracene sensitizers, transfer films, and electroplating of conductor metals on patterned resists)
- IT Bump contacts
Interconnections, electric

11/245136

- (electroplating of; UV resists containing anthracene sensitizers, transfer films, and electroplating of conductor metals on patterned resists)
- IT Transfers
(resist films; UV resists containing anthracene sensitizers, transfer films, and electroplating of conductor metals on patterned resists)
- IT 68818-86-0, 9,10-Diethoxyanthracene 76275-14-4, 9,10-Dibutoxyanthracene
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(UV resists containing anthracene sensitizers, transfer films, and electroplating of conductor metals on patterned resists)
- IT 17464-88-9, Cymel 1174
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinking agent, neg. resist component; UV resists containing anthracene sensitizers, transfer films, and electroplating of conductor metals on patterned resists)
- IT 24979-70-2, Maruka Lyncur S 2P 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(neg. resist component; UV resists containing anthracene sensitizers, transfer films, and electroplating of conductor metals on patterned resists)
- IT 41580-58-9, N-(Trifluoromethylsulfonyloxy)phthalimide 66003-78-9, Triphenylsulfonium trifluoromethanesulfonate 133710-62-0
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(photoacid generator, resist component; UV resists containing anthracene sensitizers, transfer films, and electroplating of conductor metals on patterned resists)
- IT 887704-12-3P, 2-Benzyl-2-propyl methacrylate-2-hydroxyethyl acrylate-p-hydroxyphenyl methacrylamide-isobornyl acrylate- α -methyl-4-hydroxystyrene copolymer 887704-13-4P 887704-14-5P 887704-15-6P, Butyl acrylate-1,6-dimethacrylate hexane-2-hydroxyethyl acrylate-2-methoxyethyl acrylate- α -methyl-4-hydroxystyrene copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos. resist component; UV resists containing anthracene sensitizers, transfer films, and electroplating of conductor metals on patterned resists)

L14 ANSWER 5 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:1049904 CAPLUS
DN 143:356608
ED Entered STN: 30 Sep 2005
TI Negative radiation-sensitive resin composition
IN Nishikawa, Kouji; Kimura, Tooru; Iwanaga, Shinichiro
PA JSR Corporation, Japan
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2

DT Patent
LA Japanese
IC ICM G03F007-033
ICS G03F007-004; G03F007-40; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 56, 76

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005091072	A1	20050929	WO 2005-JP5417	20050324
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,				

Handwritten: this app

11/245136

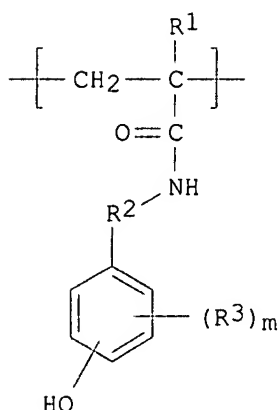
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG

JP 2005274920	A	20051006	JP 2004-87521	20040324
EP 1746461	A1	20070124	EP 2005-726999	20050324
R: DE, FR, GB, IT				
CN 1934497	A	20070321	CN 2005-80009059	20050324
PRAI JP 2004-87521	A	20040324		
WO 2005-JP5417	W	20050324		

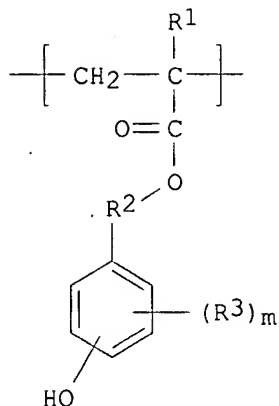
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005091072	ICM	G03F007-033
	ICS	G03F007-004; G03F007-40; H01L021-027
	IPCI	G03F0007-033 [ICM,7]; G03F0007-004 [ICS,7]; G03F0007-40 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]
	IPCR	C08F0020-00 [I,C*]; C08F0020-18 [I,A]; C08F0020-58 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-40 [I,C*]; G03F0007-40 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
JP 2005274920	ECLA	G03F007/033; G03F007/40
	IPCI	G03F0007-033 [ICM,7]; C08F0020-18 [ICS,7]; C08F0020-58 [ICS,7]; C08F0020-00 [ICS,7,C*]; G03F0007-004 [ICS,7]; G03F0007-40 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]
	IPCR	C08F0020-00 [I,C*]; C08F0020-18 [I,A]; C08F0020-58 [I,A]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-033 [I,A]; G03F0007-033 [I,C*]; G03F0007-40 [I,A]; G03F0007-40 [I,C*]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
	FTERM	2H025/AA01; 2H025/AA02; 2H025/AA03; 2H025/AA10; 2H025/AA14; 2H025/AB11; 2H025/AB17; 2H025/AC01; 2H025/AD01; 2H025/BC13; 2H025/BC42; 2H025/CA00; 2H025/CB14; 2H025/CB15; 2H025/CB42; 2H025/CB45; 2H025/FA17; 2H025/FA43; 2H096/AA27; 2H096/BA05; 2H096/EA02; 2H096/GA08; 2H096/HA27; 4J100/AL08P; 4J100/AM21P; 4J100/BA03P; 4J100/BC43P; 4J100/CA01; 4J100/JA38
EP 1746461	IPCI	G03F0007-033 [I,A]; G03F0007-004 [I,A]; G03F0007-40 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	IPCR	G03F0007-033 [I,C]; G03F0007-033 [I,A]; C08F0020-00 [I,C*]; C08F0020-18 [I,A]; C08F0020-58 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-40 [I,C]; G03F0007-40 [I,A]; H01L0021-02 [I,C]; H01L0021-027 [I,A]
CN 1934497	ECLA	G03F007/033; G03F007/40
	IPCI	G03F0007-033 [I,A]; G03F0007-004 [I,A]; G03F0007-40 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	ECLA	G03F007/033; G03F007/40

GI



I



II

AB The invention relates to a process for forming with high precision a thick electroplating shaped item, such as bump or wiring; a neg. radiation-sensitive resin composition excelling in sensitivity, resolving power, etc. that is suitable to the process; and a transfer film utilizing this composition. There is provided a neg. radiation-sensitive resin composition

comprising (A) polymer containing structural units represented by the following general formula I and/or II (R¹ = H, methyl; R² = -(CH₂)_n-; n = integer 0-30; R³ = C1-4 alkyl; m = integer 0-4), (B) compound having at least one ethylenically unsatd. double bond and (C) radiation-sensitive radical polymerization initiator. Further, there is provided production of a

neg.

radiation-sensitive resin film from this composition

ST neg radiation resin compn photoresist

IT Photoresists

(dry-film; neg. radiation-sensitive resin composition)

IT Electrodeposition

Negative photoresists

(neg. radiation-sensitive resin composition)

IT 865783-27-3P 865783-28-4P 865783-29-5P

865783-30-8P 865783-31-9P 865783-33-1P,

N-(3,5-Dimethylbenzyl)acrylamide-p-isopropenylphenol-methacrylic

acid-butyl acrylate-Isobornyl methacrylate copolymer 865783-34-2P

865783-35-3P 865783-36-4P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(resin in neg. radiation-sensitive resin composition)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Jsr Corp; JP 200039709 A 2000

(2) Konica Corp; JP 08-179505 A 1996 CAPLUS

(3) Mitsubishi Chemical Corp; EP 1384938 A 2002

(4) Mitsubishi Chemical Corp; JP 2002214780 A 2002 CAPLUS

(5) Mitsubishi Chemical Corp; US 2004108009 A 2002

(6) Mitsubishi Chemical Corp; CA 2435838 A 2002

(7) Okamoto Kagaku Kogyo Kabushiki Kaisha; JP 07-5684 A 1995 CAPLUS

L14 ANSWER 6 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1048775 CAPLUS

DN 143:356637

ED Entered STN: 30 Sep 2005

TI Negative-working photoimaging resin compositions with good storage stability for lithographic plates

11/245136

IN Kunita, Kazuto
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 93 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08F290-06
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005263984	A	20050929	JP 2004-78777	20040318
PRAI	JP 2004-78777		20040318		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005263984	ICM	C08F290-06
	IPCI	C08F0290-06 [ICM,7]; C08F0290-00 [ICM,7,C*]
	IPCR	C08F0290-00 [I,C*]; C08F0290-06 [I,A]
	FTERM	4J127/AA03; 4J127/BA041; 4J127/BB021; 4J127/BB022; 4J127/BB041; 4J127/BB081; 4J127/BB101; 4J127/BB211; 4J127/BB221; 4J127/BB281; 4J127/BB301; 4J127/BC031; 4J127/BC041; 4J127/BC151; 4J127/BD041; 4J127/BD061; 4J127/BD141; 4J127/BD251; 4J127/BD411; 4J127/BE11X; 4J127/BE111; 4J127/BE24X; 4J127/BE24Y; 4J127/BE241; 4J127/BE34X; 4J127/BE34Y; 4J127/BE341; 4J127/BE40Y; 4J127/BE401; 4J127/BE44X; 4J127/BE441; 4J127/BF15Y; 4J127/BF151; 4J127/BF32Y; 4J127/BF321; 4J127/BF36Y; 4J127/BF361; 4J127/BF51Y; 4J127/BF511; 4J127/BG05Y; 4J127/BG051; 4J127/BG11Y; 4J127/BG111; 4J127/BG16X; 4J127/BG161; 4J127/BG17Y; 4J127/BG171; 4J127/BG25Y; 4J127/BG251; 4J127/BG331; 4J127/BG341; 4J127/BG351; 4J127/CB132; 4J127/CB221; 4J127/CB282; 4J127/CB331; 4J127/CB342; 4J127/CC031; 4J127/CC181; 4J127/CC231; 4J127/CC291; 4J127/CC311; 4J127/DA02; 4J127/EA04; 4J127/EA13; 4J127/FA06; 4J127/FA16; 4J127/FA17; 4J127/FA19; 4J127/FA20

AB The compns. contain (A) radically crosslinkable alkali-soluble polymers possessing (meth)acryl groups and alkali-soluble groups and (B) aromatic heterocyclic vinyl crosslinking agents Q[YAr(CR3:CR1R2)p]k [R1-R3 = H, organic group; Ar = (p + 1)-valent aromatic (hetero)cyclic bridging group; Y = single bond, bivalent bridging group; Q = k-valent heteroarom. bridging group; k = 1-6; p = 1-4], and optionally (C) polymerization initiators and (D) sensitizing dyes. Good sensitivity to laser beams and improved shelf life are both achieved in PS plates employing the compns.

ST photopolymerizable lithog presensitizing compn storage
stability; heteroarom vinyl crosslinking agent neg lithog plate

IT Photoimaging materials

(photopolymerizable; neg. photoimaging compns.

containing heteroarom. vinyl-type radical crosslinkers for PS plates)

IT Lithographic plates

(presensitized; neg. photoimaging compns. containing heteroarom.
vinyl-type radical crosslinkers for PS plates)

IT Crosslinking agents

(radical; neg. photoimaging compns. containing heteroarom.
vinyl-type radical crosslinkers for PS plates)

IT 125051-32-3, CGI 784 125407-19-4 125428-43-5 676349-80-7

RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES
(Uses)

(initiators; neg. photoimaging compns. containing heteroarom.
vinyl-type radical crosslinkers for PS plates)

11/245136

IT 865445-77-8P 865445-79-0P 865445-82-5P 865445-84-7P
865445-85-8P 865445-87-0P 865445-88-1P 865603-46-9P 865603-49-2P
865603-51-6P 865603-52-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(neg. photoimaging compns. containing heteroarom. vinyl-type radical crosslinkers for PS plates)

IT 118234-41-6 183745-11-1 351341-74-7 865445-74-5 865445-75-6
865488-22-8

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(sensitizing dyes; neg. photoimaging compns. containing heteroarom. vinyl-type radical crosslinkers for PS plates)

L14 ANSWER 7 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:962527 CAPLUS

DN 143:258087

ED Entered STN: 02 Sep 2005

TI Bilayer laminated film for bump formation and method of bump formation

IN Nishimura, Hiroko; Ohta, Masaru; Inomata, Katsumi; Iwanaga, Shin-Ichiro

PA JSR Corporation, Japan

SO PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM G03F007-11

ICS H05K003-34

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005081064	A1	20050901	WO 2005-JP2575	20050218
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	JP 2005266795	A	20050929	JP 2005-40827	20050217
	EP 1739487	A1	20070103	EP 2005-710408	20050218
	R: DE, FR, IT				
	CN 1922546	A	20070228	CN 2005-80005594	20050218
PRAI	JP 2004-44929	A	20040220		
	WO 2005-JP2575	W	20050218		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005081064	ICM	G03F007-11
	ICS	H05K003-34
	IPCI	G03F0007-11 [ICM,7]; H05K0003-34 [ICS,7]
	IPCR	G03F0007-11 [I,C*]; G03F0007-11 [I,A]; H01L0021-02 [I,C*]; H01L0021-48 [I,A]; H05K0003-34 [I,C*]; H05K0003-34 [I,A]
	ECLA	H01L021/60B2; G03F007/033; G03F007/11; H01L021/48C4C; H05K003/34F6B
JP 2005266795	IPCI	G03F0007-11 [ICM,7]; G03F0007-004 [ICS,7]; G03F0007-033 [ICS,7]; G03F0007-40 [ICS,7]; H01L0021-60 [ICS,7];

H01L0021-02 [ICS,7,C*]
 IPCR G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-033 [I,A]; G03F0007-033 [I,C*]; G03F0007-11 [I,A]; G03F0007-11 [I,C*]; G03F0007-40 [I,A]; G03F0007-40 [I,C*]; H01L0021-02 [I,C*]; H01L0021-60 [I,A]
 FTERM 2H025/AA03; 2H025/AA10; 2H025/AA16; 2H025/AB11; 2H025/AB15; 2H025/AB17; 2H025/AC01; 2H025/AD01; 2H025/BC13; 2H025/BC42; 2H025/CA00; 2H025/CB13; 2H025/CB17; 2H025/CB43; 2H025/CB45; 2H025/CC03; 2H025/DA36; 2H025/DA40; 2H025/FA39; 2H096/AA26; 2H096/AA27; 2H096/BA01; 2H096/CA05; 2H096/GA08
 EP 1739487 IPCI G03F0007-11 [I,A]; H05K0003-34 [I,A]
 IPCR G03F0007-11 [I,C]; G03F0007-11 [I,A]; H01L0021-02 [I,C*]; H01L0021-48 [I,A]; H05K0003-34 [I,C]; H05K0003-34 [I,A]
 ECLA H01L021/60B2; G03F007/033; G03F007/11; H01L021/48C4C; H05K003/34F6B
 CN 1922546 IPCI G03F0007-11 [I,A]; H05K0003-34 [I,A]
 IPCR G03F0007-11 [I,C]; G03F0007-11 [I,A]; H01L0021-02 [I,C*]; H01L0021-48 [I,A]; H05K0003-34 [I,C*]; H05K0003-34 [I,A]
 ECLA H01L021/60B2; G03F007/033; G03F007/11; H01L021/48C4C; H05K003/34F6B
 AB A neg. radiation-sensitive bilayer laminated film for bump formation is described, characterized in that a composition comprising a polymer with specified structural unit and organic solvent is used as an underlayer of the bilayer laminated film for bump formation. A method of bump formation using the laminated film is also described. Thus, there is provided a neg. radiation-sensitive bilayer laminated film for bump formation that excels in solder paste printability and pattern configuration and that can be easily detached from substrates, and further provided a method of bump production therewith.
 ST bilayer polymer photoresist film bump solder paste
 IT Bump contacts
 Multilayers
 Negative photoresists
 (bilayer photoresist laminated film for bump formation using solder paste)
 IT Soldering
 (paste; bilayer photoresist laminated film for bump formation using solder paste)
 IT 3524-68-3, Aronix M-305 62886-89-9, Aronix M 8060 863455-98-5 863455-99-6, 2-Hydroxyethyl acrylate-N-(3,5-dimethyl-4-hydroxybenzyl)acrylamide-styrene copolymer 863456-00-2, N-(P-Hydroxyphenyl)methacrylamide-iso-propenylphenol-methacrylic acid-8-tricyclo[5.2.1.0^{2.6}]decanyl methacrylate copolymer 863456-01-3, Butyl acrylate-isopropenylphenol-methacrylic acid-isobornyl acrylate-8-tricyclo[5.2.1.0^{2.6}]decanyl methacrylate copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (bilayer photoresist laminated film for bump formation using solder paste)
 RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Arch Specialty Chemicals Inc; WO 200053645 A1 2002
 (2) Arch Specialty Chemicals Inc; JP 2002539282 A 2002
 (3) Arch Specialty Chemicals Inc; US 6492092 B1 2002 CAPLUS
 (4) Casio Computer Co Ltd; JP 10-107037 A 1998
 (5) Fuji Photo Film Co Ltd; JP 07-333836 A 1995 CAPLUS
 (6) Fuji Photo Film Co Ltd; JP 200420643 A 2004
 (7) Japan Synthetic Rubber Co Ltd; JP 08-31733 A 1996 CAPLUS
 (8) Jsr Corp; JP 200039709 A 2000
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L14 ANSWER 8 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:792183 CAPLUS

DN 137:317954

ED Entered STN: 18 Oct 2002

TI Photosensitive composition and negative working
lithographic printing plate

IN Kunita, Kazuto

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 74 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 35, 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1249731	A2	20021016	EP 2002-7216	20020327
	EP 1249731	A3	20060705		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002311569	A	20021023	JP 2001-115598	20010413
	CN 1388412	A	20030101	CN 2002-141073	20020327
	US 2003091933	A1	20030515	US 2002-106326	20020327
	US 6858373	B2	20050222		
PRAI	JP 2001-115598	A	20010413		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1249731	ICM	G03F007-027
	IPCI	G03F0007-027 [I,A]
	IPCR	B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36 [I,C*]; B41M0005-36 [I,A]; C08F0020-00 [I,C*]; C08F0020-00 [I,A]; C08F0024-00 [I,C*]; C08F0024-00 [I,A]; C08F0026-00 [I,C*]; C08F0026-00 [I,A]; C08F0028-00 [I,C*]; C08F0028-00 [I,A]; C08F0030-00 [I,C*]; C08F0030-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]
	ECLA	B41C001/10A; B41M005/36S; G03F007/021P; G03F007/033; G03F007/038; G03F007/038S
JP 2002311569	IPCI	G03F0007-00 [ICM,7]; C08F0020-00 [ICS,7]; C08F0024-00 [ICS,7]; C08F0026-00 [ICS,7]; C08F0028-00 [ICS,7]; C08F0030-00 [ICS,7]; G03F0007-038 [ICS,7]
	IPCR	B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36 [I,C*]; B41M0005-36 [I,A]; C08F0020-00 [I,C*]; C08F0020-00 [I,A]; C08F0024-00 [I,C*]; C08F0024-00 [I,A]; C08F0026-00 [I,C*]; C08F0026-00 [I,A]; C08F0028-00 [I,C*]; C08F0028-00 [I,A]; C08F0030-00 [I,C*]; C08F0030-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A];

CN 1388412 IPCI G03F0007-038 [I,C*]; G03F0007-038 [I,A]
 IPCR G03F0007-004 [ICM,7]; G03F0070-38 [ICS,7]
 B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36
 [I,C*]; B41M0005-36 [I,A]; C08F0020-00 [I,C*];
 C08F0020-00 [I,A]; C08F0024-00 [I,C*]; C08F0024-00
 [I,A]; C08F0026-00 [I,C*]; C08F0026-00 [I,A];
 C08F0028-00 [I,C*]; C08F0028-00 [I,A]; C08F0030-00
 [I,C*]; C08F0030-00 [I,A]; G03F0007-00 [I,C*];
 G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021
 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A];
 G03F0007-038 [I,C*]; G03F0007-038 [I,A]
 US 2003091933 IPCI G03F0007-022 [ICM,7]; G03F0007-038 [ICS,7]
 IPCR B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36
 [I,C*]; B41M0005-36 [I,A]; C08F0020-00 [I,C*];
 C08F0020-00 [I,A]; C08F0024-00 [I,C*]; C08F0024-00
 [I,A]; C08F0026-00 [I,C*]; C08F0026-00 [I,A];
 C08F0028-00 [I,C*]; C08F0028-00 [I,A]; C08F0030-00
 [I,C*]; C08F0030-00 [I,A]; G03F0007-00 [I,C*];
 G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021
 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A];
 G03F0007-038 [I,C*]; G03F0007-038 [I,A]
 NCL 430/283.100; 430/176.000; 430/270.100; 430/287.100;
 430/944.000; 430/945.000
 ECLA B41C001/10A; B41M005/36S; G03F007/021P; G03F007/033;
 G03F007/038; G03F007/038S
 AB The present invention relates to a photosensitive composition
 comprising a resin containing a repeating unit corresponding to a monomer
 having a structure represented by $RaRbX1C-C(=O)Q1$ ($Q1 = CN, COX2$; $X1,2 =$
 halogen, a group connected through a hetero atom; $Ra,b = H, \text{halogen}, CN,$
 organic residue; $X1$ and $X2, Ra$ and $Rb, X1$ and Ra or Rb may combine with each
 other to form a cyclic structure), and a neg. working lithog. printing
 plate having a neg. working photosensitive layer comprising the
 above described photosensitive composition The present invention
 provides a photosensitive composition and a neg. working lithog.
 printing plate, which is excellent in both the film strength of a
 photosensitive layer and the preservation stability in a
 photo-crosslinking composition that is promising in image forming
 techniques from the standpoint of the strength of photosensitive
 layer.
 ST neg working lithog printing plate resin
 IT Coating materials
 Lithographic plates
 (photosensitive composition for neg. working lithog. printing
 plate)
 IT 125604-88-8 304882-18-6
 RL: TEM (Technical or engineered material use); USES (Uses)
 (acid generator; photosensitive composition for neg. working
 lithog. printing plate containing)
 IT 603-48-5, Leuco crystal violet 65722-01-2, Victoria Pure Blue
 RL: TEM (Technical or engineered material use); USES (Uses)
 (color agent; photosensitive composition for neg. working lithog.
 printing plate containing)
 IT 409332-98-5P 471267-44-4P
 RL: POF (Polymer in formulation); SPN (Synthetic preparation); PREP
 (Preparation); USES (Uses)
 (photosensitive composition for neg. working lithog. printing
 plate containing)
 IT 89697-56-3DP, ion exchanged with acrylic polymers 212139-47-4DP, ion
 exchanged with acrylic polymers 409332-98-5DP, ionic crosslinking with
 diazo resin 471266-56-5DP, ionic crosslinking with diazo resin
 471266-60-1DP, ionic crosslinking with diazo resin 471266-62-3DP, ionic
 crosslinking with diazo resin 471266-64-5P 471266-67-8P
 471266-70-3DP, reaction product with Resol resin 471266-77-0DP, ionic

crosslinking with diazo resin 471266-80-5DP, ionic crosslinking with diazo resin 471266-82-7DP, ionic crosslinking with diazo resin 471266-85-0P 471266-88-3P 471266-92-9P 471267-47-7DP, ion exchanged with acrylic polymers

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive composition for neg. working lithog. printing plate containing)

IT 471266-48-5 471266-51-0 471266-74-7

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(photosensitive composition for neg. working lithog. printing plate containing)

IT 471266-96-3P 471267-00-2P 471267-02-4P 471267-04-6P 471267-06-8P
471267-08-0P 471267-10-4P 471267-13-7P 471267-16-0P 471267-18-2P
471267-21-7P 471267-24-0P 471267-29-5P 471267-31-9P 471267-34-2P
471267-36-4P 471267-40-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive composition for neg. working lithog. printing plate containing)

IT 201024-57-9 384850-16-2 471266-94-1

RL: TEM (Technical or engineered material use); USES (Uses)

(sensitizing dye; photosensitive composition for neg. working lithog. printing plate containing)

L14 ANSWER 9 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:674636 CAPLUS

DN 137:224109

ED Entered STN: 06 Sep 2002

TI Non-chemically amplified water and aqueous base developable negative photoresist

IN Angelopoulos, Marie; Babich, Edward D.; Babich, Inna V.; Babich, Katherina E.; Bucchignano, James J.; Petrillo, Karen E.; Rishton, Steven A.

PA International Business Machines Corporation, USA

SO U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM G03F007-004

ICS G03F007-30

INCL 430325000

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002123010	A1	20020905	US 2001-796445	20010302
	US 6617086	B2	20030909		
	US 6251569	B1	20010626	US 1999-373555	19990813
PRAI	US 1999-373555	A3	19990813		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002123010	ICM	G03F007-004
	ICS	G03F007-30
	INCL	430325000
	IPCI	G03F0007-004 [ICM,7]; G03F0007-30 [ICS,7]
	IPCR	G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0020-00 [I,C*]; C08F0020-26 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-075 [I,C*]; G03F0007-075 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

NCL 430/325.000; 430/018.000; 430/270.100; 430/910.000
 ECLA G03F007/038; G03F007/075M2
 US 6251569 IPCI G03F0007-30 [ICM,7]; G03F0007-004 [ICS,7]
 IPCR G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0020-00
 [I,C*]; C08F0020-26 [I,A]; G03F0007-038 [I,C*];
 G03F0007-038 [I,A]; G03F0007-075 [I,C*]; G03F0007-075
 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
 NCL 430/325.000; 430/018.000; 430/270.100; 430/910.000
 ECLA G03F007/038; G03F007/075M2
 AB A new group of non-chemical amplified neg. tone water/aqueous base developable
 (photo) resists based on redistribution of carbon-oxygen bonds in
 pendant ester groups of the polymers has been found. The compns.
 according to the present invention do not require any addnl.
 photocatalysts, photoinitiators or added crosslinking
 agents.
 ST water aq base developable neg photoresist
 IT Negative photoresists
 (non-chemical amplified water and aqueous base developable neg.
 photoresist)
 IT 454716-57-5P, p-Hydroxystyrene-methoxyethoxyethyl methacrylate copolymer
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
 engineered material use); PREP (Preparation); USES (Uses)
 (non-chemical amplified water and aqueous base developable neg.
 photoresist)
 IT 61412-60-0P, Poly(methoxyethoxyethyl methacrylate) 130425-25-1P,
 Methoxyethoxyethyl methacrylate-methyl methacrylate copolymer
 454716-52-0P, 4-Methacryloyloxyethyl trimellitic anhydride-
 methoxyethoxyethyl methacrylate-tetrahydrofurfuryl methacrylate copolymer
 454716-53-1P, Methoxyethoxyethyl methacrylate-4-methacryloyloxyethyl
 trimellitic anhydride copolymer 454716-54-2P, Methacrylic
 acid-methoxyethoxyethyl methacrylate copolymer 454716-55-3P,
 Methoxyethoxyethyl methacrylate-2-acrylamido-2-methyl-1-propanesulfonic
 acid copolymer 454716-56-4P, Methoxyethoxyethyl methacrylate-4-
 methacryloyloxyethyl trimellitic anhydride-dicyclopentenyl methacrylate
 copolymer 454716-57-5DP, hydrolyzed derivs. 454716-58-6P,
 Methoxyethoxyethyl methacrylate-styrene copolymer 454716-59-7P,
 p-Acetoxystyrene-methoxyethoxyethyl methacrylate copolymer
 454716-60-0P, p-Hydroxyphenyl methacrylamide-methoxyethoxyethyl
 methacrylate copolymer 454716-61-1P, 2-Bromoethyl methacrylate-
 methoxyethoxyethyl methacrylate copolymer 454716-62-2P, 1-Adamantyl
 methacrylate-Methoxyethoxyethyl methacrylate copolymer 454716-63-3P,
 Methoxyethoxyethyl methacrylate-norbornene-maleic anhydride-methacrylic
 acid copolymer 454716-64-4P, Methoxyethoxyethyl methacrylate-
 tris(trimethylsiloxy)silylpropyl methacrylate copolymer 454716-65-5P,
 Methacrylic acid-phenoxyethyl methacrylate copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (non-chemical amplified water and aqueous base developable neg.
 photoresist)
 IT 454716-66-6, Methoxyethoxyethyl methacrylate-norbornene copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (non-chemical amplified water and aqueous base developable neg.
 photoresist)
 L14 ANSWER 10 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2002:674154 CAPLUS
 DN 137:390989
 ED Entered STN: 06 Sep 2002
 TI A water-developable negative photoresist based on the
 photocrosslinking of N-phenylamide groups with reduced
 environmental impact
 AU Chae, Kyu Ho; Sun, Gum Ju; Kang, Jin Koo; Kim, Taek Hyeon

CS Department of Applied Chemistry and The Polymer Science & Technology
Research Center, Chonnam National University, Kwangju, 500-757, S. Korea
SO Journal of Applied Polymer Science (2002), 86(5), 1172-1180
CODEN: JAPNAB; ISSN: 0021-8995

PB John Wiley & Sons, Inc.

DT Journal

LA English

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

AB A water-developable neg. photoresist based on the
photocrosslinking of ~~N-phenylamide~~ groups was prepared by the
copolymer. of 4-styrenesulfonic acid sodium salts (SSS) with
N-phenylmethacrylamide (co-polymer A) or p-hydroxy-N-phenylmethacrylamide
(copolymer B), and its properties such as solubility changes, photochem
. reaction, and photoresist characteristics were studied. The
copolymer containing a relatively higher amount of SSS units was soluble in
water.

Solubility changes of the copolymers in the various buffer solns. of pH 4
.apprx. 11 and in water upon irradiation were observed by the measurement of
insol. fraction. The copolymers were soluble in water before irradiation,
whereas they became insol. upon irradiation with the UV light of 254 nm. The
photochem. reaction of the copolymer studied by the UV- and IR
absorption spectroscopies indicated that a photo-Fries
rearrangement was favored for copolymer A, whereas a
photocrosslinking reaction was predominate for copolymer B.
Resist properties of the copolymers were studied by measurement of the
normalized thickness and by development of the micropattern. Neg. tone
images with a resolution of 1 μ m were obtained with these materials that
have a sensitivity (Dg0.5) of .apprx. 1100 mJ/cm² with an aqueous developing
process.

ST photolysis water developable neg photoresist
photocrosslinking phenylamide group; styrenesulfonic acid sodium
salt phenylmethacrylamide copolymer photoresist
photocrosslinking; photochem Fries rearrangement
styrenesulfonic acid sodium salt phenylmethacrylamide copolymer

IT Crosslinking
Fries rearrangement
(photochem.; photoreactions and solubility changes of
water-developable neg. photoresists based on copolymers of
sodium styrenesulfonate with phenylmethacrylamide and its
hydroxy-derivative)

IT Photolysis
Solubility
(photoreactions and solubility changes of water-developable neg.
photoresists based on copolymers of sodium styrenesulfonate
with phenylmethacrylamide and its hydroxy-derivative)

IT Thickness
(water-developable neg. photoresists based on copolymers of
sodium styrenesulfonate with phenylmethacrylamide and its
hydroxy-derivative)

IT Negative photoresists
(water-developable; photoreactions and solubility changes of
water-developable neg. photoresists based on copolymers of
sodium styrenesulfonate with phenylmethacrylamide and its
hydroxy-derivative)

IT 1611-83-2P, N-Phenylmethacrylamide 19243-95-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(copolymer. with sodium styrenesulfonate)

IT 194878-93-8P, N-Phenylmethacrylamide-sodium p-styrenesulfonate copolymer
194878-94-9P, N-(4-Hydroxyphenyl)methacrylamide-sodium
p-styrenesulfonate copolymer
RL: CPS (Chemical process); PEP (Physical, engineering or chemical

11/245136

process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);
TEM (Technical or engineered material use); PREP (Preparation); PROC
(Process); RACT (Reactant or reagent); USES (Uses)
(photoreactions and solubility changes of water-developable neg.
photoresists based on copolymers of sodium styrenesulfonate
with phenylmethacrylamide and its hydroxy-derivative)

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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L14 ANSWER 11 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:119600 CAPLUS

DN 136:191683

ED Entered STN: 15 Feb 2002

TI Negatively working electron-beam or x-ray resist composition

IN Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 35 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-038

ICS C08F002-44; C08F291-00; G03F007-004; G03F007-027; G03F007-029;

G03F007-033; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2002049150	A	20020215	JP 2000-235915	20000803
PRAI	JP 2000-235915		20000803		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002049150	ICM	G03F007-038
	ICS	C08F002-44; C08F291-00; G03F007-004; G03F007-027; G03F007-029; G03F007-033; H01L021-027
	IPCI	G03F0007-038 [ICM,7]; C08F0002-44 [ICS,7]; C08F0291-00 [ICS,7]; G03F0007-004 [ICS,7]; G03F0007-027 [ICS,7]; G03F0007-029 [ICS,7]; G03F0007-033 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]
	IPCR	G03F0007-038 [I,C*]; G03F0007-038 [I,A]; C08F0002-44 [I,C*]; C08F0002-44 [I,A]; C08F0291-00 [I,C*]; C08F0291-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
AB	The composition contains (A) acid and/or radical generators by irradiation of electron beam or x-ray, (B) water-insol. and alkaline-soluble polymers, (C) crosslinking agents, (D) compds. having ≥ 1 acid- and/or radically polymerizable unsatd. linkage in a mol., and (E) F-containing and/or silicone surfactants. The composition shows high sensitivity and gives high-resolution resist images with good developability to be useful for fine patterning in manufacture of semiconductor devices.	
ST	neg electron beam x ray resist surfactant; semiconductor device fine patterning electron beam resist; fluorine silicone surfactant resist electron beam x ray	
IT	Surfactants (F- or silicone-containing; neg. working electron-beam or x-ray resist composition)	
IT	Polysiloxanes, uses RL: TEM (Technical or engineered material use); USES (Uses) (KP 341, surfactant; neg. working electron-beam or x-ray resist composition)	
IT	X-ray resists (neg. working electron-beam or x-ray resist composition)	
IT	Electron beam resists (neg.-working; neg. working electron-beam or x-ray resist composition)	
IT	270564-02-8P, Tetramethylammonium pentafluorobenzenesulfonate RL: CAT (Catalyst use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses) (acid generator from; neg. working electron-beam or x-ray resist composition)	
IT	3744-08-9P, Triphenylsulfonium iodide 258342-09-5P RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (acid generator from; neg. working electron-beam or x-ray resist composition)	
IT	71-43-2, Benzene, reactions 75-59-2, Tetramethylammonium hydroxide 832-53-1, Pentafluorobenzenesulfonyl chloride 945-51-7, Diphenyl sulfoxide 2049-95-8, tert-Amylbenzene 7664-93-9, Sulfuric acid, reactions 7758-05-6, Potassium iodate 12027-06-4, Ammonium iodide RL: RCT (Reactant); RACT (Reactant or reagent) (acid generator from; neg. working electron-beam or x-ray resist composition)	
IT	270563-93-4 270563-96-7 279244-39-2 279244-43-8 349647-26-3 RL: CAT (Catalyst use); USES (Uses) (acid generator; neg. working electron-beam or x-ray resist composition)	
IT	153698-46-5P, Triphenylsulfonium pentafluorobenzenesulfonate 258341-98-9P RL: CAT (Catalyst use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses) (acid generator; neg. working electron-beam or x-ray resist composition)	
IT	162846-57-3P	

11/245136

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);
RACT (Reactant or reagent)
(crosslinking agent from; neg. working electron-beam or x-ray resist
composition)
IT 50-00-0, Formaldehyde, reactions 110726-28-8, Trisp PA
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking agent from; neg. working electron-beam or x-ray resist
composition)
IT 161679-94-3P
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(crosslinking agent; neg. working electron-beam or x-ray resist composition)
IT 3089-11-0 32449-09-5 185502-14-1 185502-15-2 197087-74-4
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinking agent; neg. working electron-beam or x-ray resist composition)
IT 171429-59-7P 173786-80-6DP, hydrolyzed 349647-07-0P
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(neg. working electron-beam or x-ray resist composition)
IT 15625-89-5, Trimethylolpropane triacrylate 17831-71-9, Tetraethylene
glycol diacrylate 24979-73-5 29570-58-9, Dipentaerythritol
hexaacrylate 110123-10-9 185405-14-5 349647-01-4 349647-03-6
349647-04-7 349647-05-8 349647-06-9 399034-03-8
RL: TEM (Technical or engineered material use); USES (Uses)
(neg. working electron-beam or x-ray resist composition)
IT 66003-78-9
RL: CAT (Catalyst use); USES (Uses)
(photoacid generator; neg. working electron-beam or x-ray
resist composition)
IT 137462-24-9, Megafac F 176 216679-67-3, Megafac R 08
RL: TEM (Technical or engineered material use); USES (Uses)
(surfactant; neg. working electron-beam or x-ray resist composition)

L14 ANSWER 12 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:119599 CAPLUS

DN 136:191682

ED Entered STN: 15 Feb 2002

TI Negatively working electron-beam or x-ray resist composition

IN Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-038

ICS C08K005-00; C08L101-12; G03F007-004; G03F007-027; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2002049149	A	20020215	JP 2000-233120	20000801
PRAI	JP 2000-233120		20000801		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	----	-----
JP 2002049149	ICM	G03F007-038
	ICS	C08K005-00; C08L101-12; G03F007-004; G03F007-027; H01L021-027
	IPCI	G03F0007-038 [ICM,7]; C08K0005-00 [ICS,7]; C08L0101-12 [ICS,7]; C08L0101-00 [ICS,7,C*]; G03F0007-004 [ICS,7]; G03F0007-027 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02

[ICS,7,C*]
 IPCR G03F0007-038 [I,C*]; G03F0007-038 [I,A]; C08K0005-00 [I,C*]; C08K0005-00 [I,A]; C08L0101-00 [I,C*]; C08L0101-12 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

AB The composition contains (A) acid and/or radical generators by irradiation of electron beam or x-ray, (B) water-insol. and alkaline-soluble polymers, (C) crosslinking agents, (D) compds. having ≥ 1 acid- and/or radically polymerizable unsatd. linkage in a mol., and (E) 40-90 weight% ≥ 1 solvents selected from propylene glycol Me ether acetate, propylene glycol Me ether propionate, Me 3-methoxypropionate, Et 3-methoxypropionate, Me 3-ethoxypropionate, and Et 3-ethoxypropionate and 10-60 weight% ≥ 1 solvents selected from propylene glycol Me ether, propylene glycol Et ether, Me lactate, Et lactate, and diacetonealc. The composition shows high sensitivity and gives high-resolution resist images with good developability to be useful for fine patterning in manufacture of semiconductor devices.

ST neg electron beam x ray resist solvent; semiconductor device fine patterning electron beam resist

IT X-ray resists
 (neg. working electron-beam or x-ray resist composition)

IT Electron beam resists
 (neg.-working; neg. working electron-beam or x-ray resist composition)

IT 270564-02-8P, Tetramethylammonium pentafluorobenzenesulfonate
 RL: CAT (Catalyst use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (acid generator from; neg. working electron-beam or x-ray resist composition)

IT 3744-08-9P, Triphenylsulfonium iodide 258342-09-5P
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (acid generator from; neg. working electron-beam or x-ray resist composition)

IT 71-43-2, Benzene, reactions 75-59-2, Tetramethylammonium hydroxide 832-53-1, Pentafluorobenzenesulfonyl chloride 945-51-7, Diphenyl sulfoxide 2049-95-8, tert-Amylbenzene 7664-93-9, Sulfuric acid, reactions 7758-05-6, Potassium iodate 12027-06-4, Ammonium iodide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (acid generator from; neg. working electron-beam or x-ray resist composition)

IT 270563-93-4 270563-96-7 279244-39-2 279244-43-8 349647-26-3
 RL: CAT (Catalyst use); USES (Uses)
 (acid generator; neg. working electron-beam or x-ray resist composition)

IT 153698-46-5P, Triphenylsulfonium pentafluorobenzenesulfonate 258341-98-9P
 RL: CAT (Catalyst use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (acid generator; neg. working electron-beam or x-ray resist composition)

IT 162846-57-3P
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (crosslinking agent from; neg. working electron-beam or x-ray resist composition)

IT 50-00-0, Formaldehyde, reactions 110726-28-8, Trisp PA
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (crosslinking agent from; neg. working electron-beam or x-ray resist composition)

IT 161679-94-3P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (crosslinking agent; neg. working electron-beam or x-ray resist composition)

IT 3089-11-0 32449-09-5 185502-14-1 185502-15-2 197087-74-4
 RL: TEM (Technical or engineered material use); USES (Uses)

(crosslinking agent; neg. working electron-beam or x-ray resist composition)
 IT 130501-59-6P 173786-80-6DP, hydrolyzed 349647-07-0P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (neg. working electron-beam or x-ray resist composition)
 IT 15625-89-5, Trimethylolpropane triacrylate 17831-71-9, Tetraethylene glycol diacrylate 24979-73-5 29570-58-9, Dipentaerythritol hexaacrylate 110123-10-9 185405-14-5 349647-01-4 349647-03-6 349647-04-7 349647-05-8 349647-06-9 399034-03-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (neg. working electron-beam or x-ray resist composition)
 IT 66003-78-9
 RL: CAT (Catalyst use); USES (Uses)
 (photoacid generator; neg. working electron-beam or x-ray resist composition)
 IT 97-64-3, Ethyl lactate 123-42-2, Diacetonealcohol 763-69-9, Ethyl 3-ethoxypropionate 1320-67-8, Propylene glycol monomethyl ether 3852-09-3, Methyl 3-methoxypropionate 84540-57-8, Propylene glycol monomethyl ether acetate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (solvent; neg. working electron-beam or x-ray resist composition)

L14 ANSWER 13 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2001:709926 CAPLUS
 DN 135:280518
 ED Entered STN: 28 Sep 2001
 TI Negatively photosensitive solution containing aromatic diazonium compound for manufacturing lithographic printing plate
 IN Tsurutani, Yasuyuki; Urano, Toshiyoshi
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-004
 ICS G03F007-00; G03F007-016
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001264969	A	20010928	JP 2000-77470	20000321
PRAI	JP 2000-77470		20000321		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001264969	ICM	G03F007-004
	ICS	G03F007-00; G03F007-016
	IPCI	G03F0007-004 [ICM,7]; G03F0007-00 [ICS,7]; G03F0007-016 [ICS,7]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]

AB The solution contains (a) aromatic diazonium compound, (b) organic solvent in which the diazonium compound can dissolve, and (c) ethylenically unsatd. compound, where the b.p. of the unsatd. compound is lower than that of the organic solvent or the unsatd. compound can be azeotroped with the organic solvent. Preferably, the unsatd. compound has a cyclohexene ring. The solution has high storage stability, and the diazonium compound does not decompose for a long period. High-quality lithog. printing plates can be manufactured by using the solution

11/245136

ST neg photosensitive soln arom diazonium compd lithog printing
plate; cyclohexene arom diazonium compd photosensitive soln
storage stability lithog
IT Lithographic plates
Photoimaging materials
(neg. photosensitive solution containing aromatic diazonium compound and
ethylenically unsatd. compound for high storage stability for manufacturing
lithog. printing plate)
IT 77833-95-5
RL: DEV (Device component use); TEM (Technical or engineered material
use); USES (Uses)
(binder; neg. photosensitive solution containing aromatic diazonium
compound and ethylenically unsatd. compound for high storage stability for
manufacturing lithog. printing plate)
IT 109-86-4, Methylcellosolve 110-83-8, Cyclohexene, uses 586-62-9,
Terpinolene 9003-01-4, Jurymer AC 10L
RL: DEV (Device component use); TEM (Technical or engineered material
use); USES (Uses)
(neg. photosensitive solution containing aromatic diazonium compound and
ethylenically unsatd. compound for high storage stability for manufacturing
lithog. printing plate)

L14 ANSWER 14 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:524739 CAPLUS

DN 135:114444

ED Entered STN: 20 Jul 2001

TI Electron beam or x-ray negative-working resist composition

IN Aoi, Toshiaki; Adegawa, Yutaka; Yagihara, Morio

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 85 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-038

ICS G03F007-004; G03F007-028

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 35, 36, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	----	-----	-----
PI	EP 1117004	A2	20010718	EP 2001-100113	20010112
	EP 1117004	A3	20030813		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001337452	A	20011207	JP 2001-5374	20010112
	US 6824948	B1	20041130	US 2001-759362	20010116
PRAI	JP 2000-4766	A	20000113		
	JP 2000-84469	A	20000324		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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EP 1117004	ICM	G03F007-038
	ICS	G03F007-004; G03F007-028
	IPCI	G03F0007-038 [ICM,6]; G03F0007-004 [ICS,6]; G03F0007-028 [ICS,6]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]
	ECLA	G03F007/004D; G03F007/038
JP 2001337452	IPCI	G03F0007-033 [ICM,7]; C08F0012-24 [ICS,7]; C08F0012-00 [ICS,7,C*]; C08K0005-00 [ICS,7]; C08L0101-12 [ICS,7]; C08L0101-00 [ICS,7,C*]; G03F0007-004 [ICS,7]; G03F0007-027 [ICS,7]; G03F0007-028 [ICS,7];

G03F0007-038 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]

IPCR G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0012-00 [I,C*]; C08F0012-24 [I,A]; C08K0005-00 [I,C*]; C08K0005-00 [I,A]; C08L0101-00 [I,C*]; C08L0101-12 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-028 [I,C*]; G03F0007-028 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

US 6824948 IPCI G03F0007-004 [ICM,7]; G03F0007-029 [ICS,7]
 IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]
 NCL 430/170.000; 430/281.100; 430/287.100; 430/288.100; 430/296.000
 ECLA G03F0007/004D; G03F0007/038

AB The invention relates to a neg.-working resist composition useful for super microlithog. such as VLSI and high-capacity microchips and to a composition capable of forming microfine patterns using X-rays and an electron beam, and to a composition suitable for working of semiconductor devices using an electron beam. A neg.-working resist composition for electron beams or x-rays comprises (a) a compound generating an acid and/or radical species by the irradiation of electron beams or x-rays, (b) a resin which is insol. in H₂O and soluble in an alkali aqueous solution, (c) a crosslinking agent causing crosslinking with the resin of component (b) by the action of an acid, and (d) a compound having ≥ 1 unsatd. bond capable of being polymerized by an acid and/or a radical, and a neg.-working resist composition for electron beams or x-rays comprising (a) a compound generating an acid and/or radical species by the irradiation of electron beams or x-rays, (b') a resin having ≥ 1 unsatd. bond polymerizable by an acid and/or an alkali, which is insol. in H₂O but soluble in an alkali aqueous solution, and (c) a crosslinking agent causing crosslinking with the resin (b') by the action of an acid are disclosed.

ST electron beam x ray neg photoresist crosslinking hydroxystyrene polymer

IT Photoresists
 (chemical-amplified; neg.-working photoresist composition for X-ray or electron beam lithog. containing alkali-soluble resin and acidic crosslinking agent)

IT Crosslinking agents
 Electron beam lithography
 X-ray lithography
 (neg.-working photoresist composition for X-ray or electron beam lithog. containing alkali-soluble resin and acidic crosslinking agent)

IT 3089-11-0P 32449-09-5P
 RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (crosslinking agent; crosslinking agent for neg.-working photoresist composition for X-ray or electron beam lithog.)

IT 153698-46-5P, Triphenylsulfonium pentafluorobenzenesulfonate
 168634-95-5P 258341-98-9P 270563-93-4P 270563-96-7P 279244-43-8P
 349619-92-7P 349647-26-3P
 RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
 (photoacid generator; acid-generating agent in neg.-working photoresist composition for X-ray or electron beam lithog.)

IT 15625-89-5, Trimethylolpropane triacrylate 17831-71-9, Tetraethyleneglycol diacrylate 29570-58-9, Dipentaerythritol hexaacrylate
 RL: DEV (Device component use); NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
 (polymerizable monomer in neg.-working photoresist composition for X-ray or electron beam lithog.)

11/245136

IT 161679-94-3P 161679-95-4P 161679-98-7P 162846-57-3P 185502-11-8P
185502-14-1P 185502-15-2P 197087-73-3P 197087-74-4P
RL: DEV (Device component use); IMF (Industrial manufacture); MOA
(Modifier or additive use); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)
(synthesis of acid crosslinking agent for neg.-working
photoresist composition for X-ray or electron beam lithog.)
IT 270564-02-8P, Tetramethylammonium pentafluorobenzenesulfonate
RL: DEV (Device component use); IMF (Industrial manufacture); SPN
(Synthetic preparation); PREP (Preparation); USES (Uses)
(synthesis of acid-generating agent for neg.-working
photoresist composition for X-ray or electron beam lithog.)
IT 24979-73-5P, 3-Hydroxystyrene-styrene copolymer 24979-74-6P,
4-Hydroxystyrene-styrene copolymer 110123-10-9P, 4-Hydroxystyrene-2-
hydroxyethyl acrylate copolymer 171429-59-7P, 4-Hydroxystyrene-4-
acetoxystyrene copolymer 185405-14-5P 349647-01-4P 349647-02-5P
349647-03-6P 349647-04-7P 349647-05-8P 349647-06-9P
349647-07-0P 349647-08-1P 349647-10-5P 349647-12-7P 349647-14-9P
349647-16-1P 349647-18-3P 349647-19-4P 349647-21-8P 349647-23-0P
349652-45-5P 349652-47-7P 349652-48-8P
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer
in formulation); SPN (Synthetic preparation); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(synthesis of alkali-soluble resin for neg.-working photoresist
composition for X-ray or electron beam lithog.)

L14 ANSWER 15 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:242861 CAPLUS
DN 134:287856
ED Entered STN: 06 Apr 2001
TI Method for negative-working photoresist pattern
formation using light sensitive composition containing polymer with
ethyloxy acrylate repeating unit
IN Angelopoulos, Marie; Babich, Edward D.; Babich, Inna V.; Babich, Katelina
E.; Bucchignano, James J.; Petrillo, Karen E.; Liston, Steven Anthony
PA International Business Machines Corp., USA
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-033
ICS C08F020-26; G03F007-075; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001092135	A	20010406	JP 2000-239755	20000808
	JP 3584968	B2	20041104		
	US 6251569	B1	20010626	US 1999-373555	19990813
PRAI	US 1999-373555	A	19990813		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001092135	ICM	G03F007-033
	ICS	C08F020-26; G03F007-075; H01L021-027
	IPCI	G03F0007-033 [ICM,7]; C08F0020-26 [ICS,7]; C08F0020-00 [ICS,7,C*]; G03F0007-075 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]
	IPCR	G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0020-00 [I,C*]; C08F0020-26 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-075 [I,C*]; G03F0007-075 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

US 6251569 IPCI G03F0007-30 [ICM,7]; G03F0007-004 [ICS,7]
 IPCR G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0020-00
 [I,C*]; C08F0020-26 [I,A]; G03F0007-038 [I,C*];
 G03F0007-038 [I,A]; G03F0007-075 [I,C*]; G03F0007-075
 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
 NCL 430/325.000; 430/018.000; 430/270.100; 430/910.000
 ECLA G03F0007/038; G03F0007/075M2

AB The title method includes the steps of: forming a neg.-working
 photoresist layer containing polymer with repeating unit
 $[-CH_2-C(R)(COO-CH_2CH_2OR')]_n-$ (R = alkyl, $CH_2Si(CH_3)_3$; R' =
 $-(CH_2CH_2O)mR_n$, alkyl, cycloalkyl, aryl; m 1-10 integer; n = 5-10,000
 integer); imagewise exposing the resist layer; and removing unexposed area
 from the resist layer. The method, which uses the light-sensitive composition
 containing the polymer with ethyloxy acrylate repeating unit, provides the
 high resolution pattern developable in aqueous solution

ST neg working photoresist polymer ethyloxy acrylate repeating unit

IT Light-sensitive materials
 (method for neg.-working photoresist pattern formation using
 light sensitive composition containing polymer with ethyloxy acrylate
 repeating
 unit)

IT Photoresists
 (polymer in light sensitive composition for neg.-working photoresist
 pattern formation)

IT 65744-44-7P, 2-(2-Methoxyethoxy)ethyl acrylate homopolymer 332936-77-3P,
 2-(2-Methoxyethoxy)ethyl acrylate-Tetrahydro-3-furyl methacrylate-4-
 Methacryloyloxyethyl trimellitic anhydride copolymer 332936-79-5P,
 2-(2-Methoxyethoxy)ethyl acrylate-methacrylic acid copolymer
 332936-81-9P, 2-(2-Methoxyethoxy)ethyl acrylate-2-Acrylamido-2-methyl-1-
 propanesulfonic acid copolymer 332936-83-1P, 2-(2-Methoxyethoxy)ethyl
 acrylate-4-Methacryloyloxyethyl trimellitic anhydride-dicyclopentenyl
 methacrylate copolymer 332936-85-3P, 2-(2-Methoxyethoxy)ethyl
 acrylate-p-hydroxystyrene copolymer 332936-87-5P, 2-(2-
 Methoxyethoxy)ethyl acrylate-styrene copolymer 332936-89-7P,
 2-(2-Methoxyethoxy)ethyl acrylate-p-Acetoxystyrene copolymer
 332936-91-1P, 2-(2-Methoxyethoxy)ethyl acrylate-N-(p-
 Hydroxyphenyl)methacrylamide copolymer 332936-93-3P,
 2-(2-Methoxyethoxy)ethyl acrylate-2-bromoethyl methacrylate copolymer
 332936-95-5P, 2-(2-Methoxyethoxy)ethyl acrylate-1-Adamantyl acrylate
 copolymer 332936-97-7P, 2-(2-Methoxyethoxy)ethyl acrylate-Norbornene-
 maleic anhydride-methacrylic acid copolymer 332936-99-9P,
 2-(2-Methoxyethoxy)ethyl acrylate-3-[Tris(trimethylsiloxy)silyl]propyl
 methacrylate copolymer 332937-01-6P, 2-(2-Methoxyethoxy)ethyl
 acrylate-4-Methacryloyloxyethyl trimellitic anhydride copolymer
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (polymer in light sensitive composition for neg.-working photoresist
 pattern formation)

L14 ANSWER 16 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:70512 CAPLUS

DN 134:302929

ED Entered STN: 31 Jan 2001

TI Preparation of the polymers containing phenylamide and dimethylaminoethyl
 groups and their properties as a negative photoresist

AU Chae, Kyu Ho; Kang, Jin Koo; Kim, Su Kyung; Chough, Sung Hyo

CS Department of Applied Chemistry, Chonnam National University, Kwangju,
 500-757, S. Korea

SO Journal of Photoscience (2000), 7(2), 47-52
 CODEN: JOPHFS; ISSN: 1225-8555

PB Korean Society of Photoscience

DT Journal

LA English

- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
- AB Copolymers of N, N-dimethylaminoethyl methacrylate (DAEM) and N-arylmethacrylamide (AMA) were prepared, and their photochem. properties as a neg. photoresist were studied by measuring the insol. fraction, and by UV and IR absorption spectral changes. These copolymers are soluble in DMF, acetone, MeOH, or acidic buffers. Solubility of these copolymer films in the buffer solns. increased with the amount of DAEM units in the copolymer and decreased with the pH value. The insol. fraction of the copolymer films in the buffer solution of pH 4 or in MeOH increased with irradiation time and the amount of AMA units in the copolymer,
- UV and IR spectral changes indicated that not only photo-crosslinking but also the photo-Fries rearrangement took place upon irradiation with a 254. nm UV light.
- ST polymer phenyl amide dimethyl aminoethyl photoresist
- IT Crosslinking
IR spectra
Solubility
UV and visible spectra
(of polymers containing phenylamide and dimethylaminoethyl groups for use as neg. photoresists developable in pH 4 buffers or methanol)
- IT Fries rearrangement
(photochem.; of polymers containing phenylamide and dimethylaminoethyl groups for use as neg. photoresists developable in pH 4 buffers or methanol)
- IT Polymers, preparation
RL: PNU (Preparation, unclassified); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photosensitive; polymers containing phenylamide and dimethylaminoethyl groups for use as neg. photoresists developable in pH 4 buffers or methanol)
- IT Negative photoresists
(polymers containing phenylamide and dimethylaminoethyl groups for use as neg. photoresists developable in pH 4 buffers or methanol)
- IT 81337-93-1P 334702-66-8P
RL: PNU (Preparation, unclassified); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of polymers containing phenylamide and dimethylaminoethyl groups for use as neg. photoresists developable in pH 4 buffers or methanol)
- IT 1611-83-2P, N-Phenylmethacrylamide 19243-95-9P, N-(p-Hydroxyphenyl)methacrylamide
RL: PNU (Preparation, unclassified); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of polymers containing phenylamide and dimethylaminoethyl groups for use as neg. photoresists developable in pH 4 buffers or methanol using)
- IT 62-53-3, Aniline, reactions 760-93-0, Methacrylic acid anhydride 2628-17-3, p-Hydroxystyrene
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; preparation of polymers containing phenylamide and dimethylaminoethyl groups for use as neg. photoresists developable in pH 4 buffers or methanol using)
- RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
(1) Anon; 1958
(2) Chae, K; J Photopol Sci & Tech 1997, V10, P335
(3) Frechet, J; Macromolecules 1985, V18, P317 CAPLUS

11/245136

- (4) Korea Biochemical Society; Experimental Biochemistry 1986, P498
- (5) Rabek, J; Photostabilization of Polymers: Principles and Applications 1990, P202
- (6) Shirai, M; Eur Polym J 1993, V29, P913 CAPLUS
- (7) Shirai, M; Macromol Chem 1991, V192, P1447 CAPLUS
- (8) Stenberg, V; Organic Photochemistry 1967, V1, P127

L14 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:887816 CAPLUS

DN 134:63914

ED Entered STN: 19 Dec 2000

TI Negative-working presensitized lithographic printing plate

IN Ota, Katsuko; Tsuji, Shigeo; Yokoo, Toshiaki; Sasaki, Mitsuru

PA Mitsubishi Chemical Corp., Japan; Konica Co.

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-033

ICS B41N001-14; G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2000352818	A	20001219	JP 1996-9227	19960123
PRAI	JP 1996-9227		19960123		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 2000352818	ICM	G03F007-033
	ICS	B41N001-14; G03F007-00
	IPCI	G03F0007-033 [ICM,7]; B41N0001-14 [ICS,7]; G03F0007-00 [ICS,7]

AB In the neg.-working presensitized lithog. printing plate having a photosensitive layer on a support, the photosensitive layer contains (A) an alkaline soluble or swellable polymer compound, (B) a diazo

resin, and (C) a polymer compound with the weight average mol. weight 100,000-400,000

derived from $\text{CH}_2=\text{C}(\text{R}_1)\text{COOR}_2$ ($\text{R}_1 = \text{H, Me}$; $\text{R}_2 = \text{C}_8\text{-16 alkyl}$).

ST presensitized lithog printing plate diazo resin

IT Lithographic plates

(presensitized; neg.-working presensitized lithog. printing plate)

IT 77833-95-5P, Acrylonitrileethyl acrylate-4-hydroxyphenylmethacrylamide-methacrylic acid copolymer 125785-09-3P, p-Diazodiphenylamine sulfate-formaldehyde-p-hydroxybenzoic acid copolymer 314069-55-1P, Butyl acrylate-ethyl methacrylate-4-hydroxybutyl acrylate-n-hexyl methacrylate-N-(4-hydroxyphenyl)methacrylamide-lauryl acrylate-methacrylic acid copolymer 314069-56-2P, Butyl acrylate-ethyl methacrylate-4-hydroxybutyl acrylate-n-hexyl methacrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid-octyl acrylate copolymer 314069-57-3P, Butyl acrylate-ethyl methacrylate-hexadecyl acrylate-4-hydroxybutyl acrylate-n-hexyl methacrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(neg.-working presensitized lithog. printing plate)

L14 ANSWER 18 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:768000 CAPLUS

DN 133:342511

11/245136

ED Entered STN: 02 Nov 2000
TI Negative-working photosensitive planographic printing
plate with photocrosslinking print-out layer
IN Shiraishi, Yuichi
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-00
ICS C08F002-00; C08F002-50; C08J007-06; C08K005-00; C08L101-14;
G03F007-004; G03F007-028; G03F007-033; G03F007-038; G03F007-095
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2000305257	A	20001102	JP 1999-115113	19990422
PRAI	JP 1999-115113		19990422		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	----	-----
JP 2000305257	ICM	G03F007-00
	ICS	C08F002-00; C08F002-50; C08J007-06; C08K005-00; C08L101-14; G03F007-004; G03F007-028; G03F007-033; G03F007-038; G03F007-095
	IPCI	G03F0007-00 [ICM,7]; C08F0002-00 [ICS,7]; C08F0002-50 [ICS,7]; C08J0007-06 [ICS,7]; C08K0005-00 [ICS,7]; C08L0101-14 [ICS,7]; G03F0007-004 [ICS,7]; G03F0007-028 [ICS,7]; G03F0007-033 [ICS,7]; G03F0007-038 [ICS,7]; G03F0007-095 [ICS,7]
	IPCR	C08J0007-00 [I,C*]; C08J0007-06 [I,A]; C08F0002-00 [I,C*]; C08F0002-00 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08K0005-00 [I,C*]; C08K0005-00 [I,A]; C08L0101-00 [I,C*]; C08L0101-14 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-028 [I,C*]; G03F0007-028 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-095 [I,C*]; G03F0007-095 [I,A]

AB The printing plate comprises a support with hydrophilic surface having
thereon a layer containing a print-out composition and an alkali
solution-soluble or
swelling polymer compound and a layer containing an alkali solution-soluble or
swelling photocrosslinking compound and its sensitizer in
succession. It showed improved print-out and inspection properties and
high printing durability, preventing a dirt on printing.

ST neg working photosensitive planog printing plate; presensitized
lithog plate photocrosslinking print out layer

IT Lithographic plates
(presensitized; neg.-working photosensitive planog. printing
plate with photocrosslinking layer for print-out and
inspection properties)

IT 1328-54-7, Oil Blue 603 2390-60-5, Victoria Pure Blue BOH 148836-97-9
154924-50-2 303965-76-6
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)

(dye; neg.-working photosensitive planog. printing plate with
photocrosslinking layer for print-out and inspection
properties)

IT 2772-21-6 57835-99-1 68541-73-1 68900-98-1 133830-21-4,
Methacrylic acid-N-[6-(methacryloyloxy)hexyl]-2,3-dimethylmaleimide
copolymer 136826-60-3, Acrylonitrile-ethyl methacrylate-N-(4-

11/245136

hydroxyphenyl)methacrylamide-methacrylic acid copolymer 303965-69-7
303965-71-1 303965-73-3 303965-74-4 304464-05-9D, polymers
RL: DEV (Device component use); USES (Uses)
(neg.-working photosensitive planog. printing plate with
photocrosslinking layer for print-out and inspection
properties)

L14 ANSWER 19 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:250658 CAPLUS
DN 128:328792
ED Entered STN: 02 May 1998
TI Negative IR laser recording material comprising acrylic resin,
diazo compound, and carbon black for lithographic plate preparation
IN Aoshima, Keitaro; Kitatani, Katsuji; Yokoya, Hiroaki; Shiraishi, Yuichi
PA Fuji Photo Film Co., Ltd., Japan
SO U.S., 12 pp., Cont. of U.S. Ser. No. 403,484, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03F007-021
ICS G03F007-30

INCL 430175000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 5741619	A	19980421	US 1997-789817	19970127
	JP 07306528	A	19951121	JP 1994-77542	19940415
	JP 3317574	B2	20020826		
PRAI	JP 1994-44152	A	19940315		
	JP 1994-77542	A	19940415		
	US 1995-403484	B1	19950314		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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US 5741619	ICM	G03F007-021
	ICS	G03F007-30
	INCL	430175000
	IPCI	G03F0007-021 [ICM,6]; G03F0007-016 [ICM,6,C*]; G03F0007-30 [ICS,6]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]
	NCL	430/175.000; 430/176.000; 430/302.000; 430/325.000; 430/944.000; 430/945.000
	ECLA	G03F007/021; G03F007/021P
JP 07306528	IPCI	G03F0007-016 [ICM,6]; B41C0001-055 [ICS,6]; G03F0007-00 [ICS,6]; G03F0007-038 [ICS,6]
	IPCR	G03F0007-016 [I,C*]; G03F0007-016 [I,A]; B41C0001-055 [I,C*]; B41C0001-055 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]
AB		A neg. IR laser recording material containing an acrylic resin, a substance which absorbs light and generates heat, and a diazonium compound having two or more diazonio groups in the mol. for lithog. plate preparation is disclosed.
ST		neg diazo photoimaging material lithog plate
IT		Thermographic copying (materials comprising acrylic resins, diazo compds., and carbon black for preparation of lithog. plates)
IT		Lithographic plates (neg. IR laser recording materials comprising acrylic resins, diazo compds., and carbon black for preparation of)
IT		Carbon black, uses RL: TEM (Technical or engineered material use); USES (Uses)

11/245136

(neg. IR laser recording materials for lithog. plate preparation containing)
IT Polyvinyl butyrals
RL: TEM (Technical or engineered material use); USES (Uses)
(succinates; neg. IR laser recording materials for lithog. plate preparation containing)
IT Recording materials
(thermal; comprising acrylic resins, diazo compds., and carbon black for preparation of lithog. plates)
IT 93208-40-3
RL: TEM (Technical or engineered material use); USES (Uses)
(get 16072-57-4get 1330-69-4neg. IR laser recording materials for lithog. plate preparation containing)
IT 110-15-6D, Succinic acid, ester with polyvinylbutyral 2390-60-5, Victoria Pure Blue BOH 6915-15-7, Malic acid 9002-89-5D, Polyvinyl alcohol, butylral, succinate 11114-17-3, FC-430 21583-38-0D, Succinic acid, Mono(2-hydroxyethyl) ester, ester with polyvinylbutyral 68541-74-2 173783-73-8 188302-70-7 206447-23-6 206447-31-6 206447-32-7 206447-34-9
RL: TEM (Technical or engineered material use); USES (Uses)
(neg. IR laser recording materials for lithog. plate preparation containing)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Haley; US 5372915 1994 CAPLUS
- (2) Jeffers; US 4248959 1981 CAPLUS
- (3) Kanda; US 5478690 1995 CAPLUS
- (4) Kawamura; US 5153095 1992 CAPLUS
- (5) Kirihata; US 5089372 1992 CAPLUS
- (6) Kita; US 4123276 1978 CAPLUS
- (7) Kitajima; US 4334006 1982 CAPLUS

L14 ANSWER 20 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:76151 CAPLUS

DN 128:186524

ED Entered STN: 09 Feb 1998

TI Negative-working lithographic printing plate with improved printing durability

IN Aoshima, Katsataro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41C001-055

ICS G03F007-00; G03F007-033

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10029292	A	19980203	JP 1996-187940	19960717
	JP 3816152	B2	20060830		
PRAI	JP 1996-187940		19960717		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 10029292	ICM	B41C001-055
	ICS	G03F007-00; G03F007-033
	IPCI	G03F0007-038 [I,A]; G03F0007-00 [I,A]
	IPCR	G03F0007-033 [I,C*]; G03F0007-033 [I,A]; B41C0001-055 [I,C*]; B41C0001-055 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]

AB The material comprises ≥ 1 (meth)acrylate polymer having hydroxyaryl

in a side chain, a crosslinking agent crosslinkable with an acid, an acid-generating compound by light or heat, and an IR absorbing agent. The plate is useful for neg.-type lithog. direct printing by solid-state or semiconductor laser exposure.

- ST neg. working photosensitive lithog printing plate; laser exposure
photosensitive lithog printing plate; polyacrylate
polymethacrylate photosensitive lithog plate
- IT Phenolic resins, preparation
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(crosslinking agents; neg.-working lithog. printing plate with improved printing durability)
- IT Crosslinking agents
(neg.-working lithog. printing plate with improved printing durability)
- IT Printing plates
(photosensitive; neg.-working lithog. printing plate with improved printing durability)
- IT 110726-28-8, Trisp PA
RL: RCT (Reactant); RACT (Reactant or reagent)
(Trisp PA; neg.-working lithog. printing plate with improved printing durability)
- IT 6293-66-9 10409-06-0 54769-57-2 130536-25-3 159300-88-6
185502-15-2 203179-97-9
RL: MOA (Modifier or additive use); USES (Uses)
(acid-generating agents; neg.-working lithog. printing plate with improved printing durability)
- IT 25085-75-0P, Bisphenol A-formaldehyde copolymer 161679-94-3P
162846-57-3P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(crosslinking agents; neg.-working lithog. printing plate with improved printing durability)
- IT 531-18-0, Hexamethylolmelamine 185502-11-8 197087-73-3 197087-74-4
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents; neg.-working lithog. printing plate with improved printing durability)
- IT 123-30-8, p-Aminophenol 920-46-7, Methacryloyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(monomer preparation starting materials; neg.-working lithog. printing plate with improved printing durability)
- IT 203179-80-0P, Ethyl methacrylate-N-(p-hydroxyphenyl)methacrylamide copolymer 203179-81-1P, Benzyl acrylate-2-(p-hydroxyphenyl)ethyl methacrylate copolymer 203179-83-3P 203179-84-4P 203179-85-5P 203179-87-7P 203179-88-8P 203179-90-2P 203179-92-4P 203179-94-6P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(neg.-working lithog. printing plate with improved printing durability)
- IT 161679-95-4 161679-98-7 185502-14-1
RL: MOA (Modifier or additive use); USES (Uses)
(neg.-working lithog. printing plate with improved printing durability)
- IT 501-94-0, 2-(4-Hydroxyphenyl)ethyl alcohol
RL: RCT (Reactant); RACT (Reactant or reagent)
(neg.-working lithog. printing plate with improved printing durability)

L14 ANSWER 21 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:1273 CAPLUS

DN 128:95387

ED Entered STN: 02 Jan 1998

TI Negative-working photosensitive composition for lithographic printing plate

IN Aoshima, Keitaro

PA Fuji Photo Film Co., Ltd., Japan

SO U.S., 23 pp., Cont.-in-part of U.S. Ser. No. 953,259, abandoned.

11/245136

CODEN: USXXAM
DT Patent
LA English
IC ICM G03F007-021
INCL 430176000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 35, 38

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5698361 ✓	A	19971216	US 1993-142044	19931028
	JP 05100419	A	19930423	JP 1991-259432	19911007
	JP 05142765	A	19930611	JP 1991-303229	19911119
PRAI	JP 1991-259432	A	19911007		
	JP 1991-303229	A	19911119		
	US 1992-953259	B2	19920930		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5698361	ICM	G03F007-021
	INCL	430176000
	IPCI	G03F0007-021 [ICM,6]; G03F0007-016 [ICM,6,C*]
	IPCR	C08G0018-00 [I,C*]; C08G0018-38 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]
	NCL	430/176.000; 430/157.000; 430/175.000; 430/906.000; 522/032.000
JP 05100419	ECLA	C08G018/38F9; G03F007/021P
	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]; H01L0021-027 [ICS,5]; H01L0021-02 [ICS,5,C*]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H01L0021-30 [I,A]
JP 05142765	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]; G03F0007-00 [ICS,5]; G03F0007-035 [ICS,5]; G03F0007-032 [ICS,5,C*]; H01L0021-027 [ICS,5]; H01L0021-02 [ICS,5,C*]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-032 [I,C*]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-035 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H01L0021-30 [I,A]

AB The present invention relates to a neg.-working photosensitive composition comprising a diazonium compound and a polymer binder. The polymer binder is (1) or (2) described below. (1) Is an AB type, ABA type or BAB type block copolymer of: (i) a block (A) represented by [H2CCR1(X1Z)] and (ii) a block (B) represented by [H2CCR5(X2R6)] being free from I. (2) Is a block copolymer obtained by subjecting to radical polymerization (i) an azo group-containing polyurethane (C) which contains a unit having R7NHCOOR6N=NR6OCONH and a unit having R9NHCOOR10OCONH in the mol. and which has a weight-average mol. weight of 2,000-200,000; and (ii) a polymerizable monomer having H2C=R1(X1Z).

ST neg photosensitive compn polymer binder; lithog printing plate
photosensitive compn

IT Lithographic plates
(neg.-working photosensitive composition for lithog. printing plate)

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(neg.-working photosensitive composition for lithog. printing plate)

11/245136

IT 149787-91-7P, Acrylic acid-ethyl methacrylate-2-hydroxyethyl methacrylate
block copolymer 149826-04-0P 149826-05-1P 149826-06-2P
201054-29-7DP, Ethyl methacrylate-triphenylmethyl methacrylate copolymer,
hydrolyzed, reaction product with 2-bromoethanol 201054-31-1P
201054-32-2P 201054-33-3P 201054-35-5P 201054-37-7P 201054-39-9P
201054-41-3P 201054-42-4P 201054-43-5P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(neg.-working photosensitive composition for lithog. printing
plate)

L14 ANSWER 22 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:509616 CAPLUS

DN 127:212543

ED Entered STN: 11 Aug 1997

TI Negative-type photoimaging material for lithographic
printing plate

IN Aoshima, Keitaro; Kitaya, Katsushi; Kobayashi, Fumikazu

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-038

ICS G03F007-00; G03F007-004; G03F007-033; G03F007-20

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 38

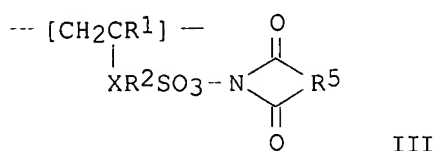
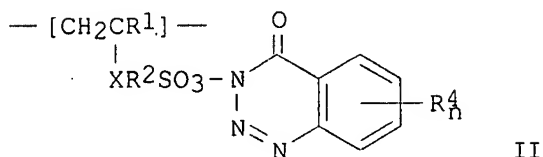
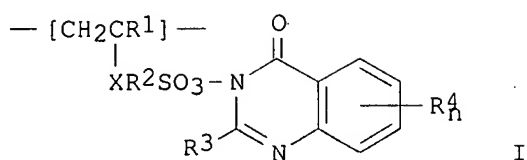
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09197671	A	19970731	JP 1996-9444	19960123
PRAI	JP 1996-9444		19960123		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 09197671	ICM	G03F007-038
	ICS	G03F007-00; G03F007-004; G03F007-033; G03F007-20
	IPCI	G03F0007-038 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-004 [ICS,6]; G03F0007-033 [ICS,6]; G03F0007-20 [ICS,6]

GI



- AB The material contains (A) a polymer having a repeating unit I, II, III, (CH₂CR¹XAr¹SO₂SO₂Ar²), and/or (CH₂CR¹XR²SO₂ONR³COR³) (R¹ = H, C_{≤20} hydrocarbon; R² = direct bond, C_{≤20} divalent hydrocarbon; R³ = C_{≤20} hydrocarbon; R⁴ = halo, C_{≤20} hydrocarbon, C_{≤20} alkoxy; R⁵ = C_{≤20} divalent hydrocarbon; Ar¹ = C_{≤20} arylen; Ar² = C_{≤20} aryl; X = direct bond, CO₂, CON R¹; n = 0-4), (B) an IR absorber, (C) a novolak resin, and (D) a resol resin. The material is useful for direct printing by using an IR laser.
- ST image recording neg type acrylic copolymer; novolak resol resin lithog printing plate; photoimaging resin IR radiation lithog plate; acrylic copolymer IR absorber photoimaging
- IT Optical materials
Optical materials
RL: DEV (Device component use); USES (Uses)
(IR absorbers; neg.-type photoimaging material in lithog. plate for direct printing)
- IT IR materials
IR materials
RL: DEV (Device component use); USES (Uses)
(absorbers; neg.-type photoimaging material in lithog. plate for direct printing)
- IT Lithographic plates
Photoimaging materials
(neg.-type photoimaging material in lithog. plate for direct printing)
- IT Phenolic resins, uses
RL: DEV (Device component use); USES (Uses)
(novolak; neg.-type photoimaging material in lithog. plate for direct printing)
- IT Phenolic resins, uses
RL: DEV (Device component use); USES (Uses)
(resol; neg.-type photoimaging material in lithog. plate for direct printing)
- IT 22371-56-8, NK 3508 55281-19-1, NK 2268
RL: DEV (Device component use); USES (Uses)
(IR absorber; neg.-type photoimaging material in lithog. plate for direct printing)
- IT 9016-83-5, Cresol-formaldehyde copolymer 25085-75-0, Bisphenol A-formaldehyde copolymer

11/245136

RL: DEV (Device component use); USES (Uses)
(neg.-type photoimaging material in lithog. plate for direct printing)

IT 194536-20-4P 194536-22-6P 194536-25-9P 194536-27-1P
194536-30-6P 194536-33-9P 194536-36-2P 194536-39-5P 194536-41-9P
194536-42-0P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP
(Preparation); USES (Uses)
(neg.-type photoimaging material in lithog. plate for direct printing)

L14 ANSWER 23 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:468828 CAPLUS

DN 127:227268

ED Entered STN: 26 Jul 1997

TI New water soluble negative photoresists containing
N-phenylamide groups

AU Chae, Kyu Ho; Kang, Jin Koo; Chang, Taihyun

CS Department of Polymer Engineering, Chonnam National University, Kwangju,
500-757, S. Korea

SO Journal of Photopolymer Science and Technology (1997), 10(2), 359-362
CODEN: JSTEEW; ISSN: 0914-9244

PB Technical Association of Photopolymers, Japan

DT Journal

LA English

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 35, 36

AB Application of photochem. reactions to polymer systems were
studied. The present paper reports preparation and dissoln. properties of
water soluble neg. photoresists having N-phenylamide groups. They
were prepared by copolymn. of N-phenylmethacrylamide (PMA) or
p-hydroxy-N-phenylmethacrylamide (HPMA) with 4-styrenesulfonic acid sodium
salt (SSS). The water soluble neg. photoresists would be important
for their use in the immobilization of enzymes, in the manufacture of the
screen printing plates, and in the production of a phosphor screen and a black
matrix of a color TV tubes.

ST water soluble neg photoresist phenylamide group;
phenylmethacrylamide styrenesulfonic acid sodium salt photoresist
; hydroxyphenylmethacrylamide styrenesulfonic acid sodium salt
photoresist

IT Polymerization
(co-; water soluble neg. photoresists containing N-phenylamide
groups)

IT Photolysis
Photoresists
(water soluble neg. photoresists containing N-phenylamide groups)

IT 194878-93-8P 194878-94-9P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)

(water soluble neg. photoresists containing N-phenylamide groups)

IT 1611-83-2, N-Phenylmethacrylamide 2695-37-6, 4-Styrenesulfonic acid
sodium salt 19243-95-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(water soluble neg. photoresists containing N-phenylamide groups)

L14 ANSWER 24 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:134208 CAPLUS

DN 126:150577

ED Entered STN: 28 Feb 1997

TI Negative photosensitive resin compositions,
lithographic plates, and their development

IN Matsumura, Tomoyuki; Ishii, Nobuyuki; Kizu, Noryuki

✓ ck'd ref no

11/245136

PA Konishiroku Photo Ind, Japan; Mitsubishi Chemical Corp.
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-027
ICS G03F007-027; G03F007-029
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08320560	A	19961203	JP 1995-148410	19950524
PRAI	JP 1995-148410		19950524		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08320560	ICM	G03F007-027
	ICS	G03F007-027; G03F007-029
	IPCI	G03F0007-027 [ICM,6]; G03F0007-027 [ICS,6]; G03F0007-029 [ICS,6]
	IPCR	G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]

AB The photosensitive compns. contain (a) photopolymn. initiators, (b) polymers which give films, (c) compds. having addition-polymerizable unsatd. bonds containing PhOH derivs., preferably CH₂:CR₁(R₂)hC₆H₄OH (R₁ = H, Me; R₂ = CO₂, CONH; h = 0, 1), and optionally (d) diazo compds. The lithog. plates have the photosensitive composition coatings on supports having hydrophilic surfaces and are developed with water-thinned alkali developers free of organic solvents. The neg. photosensitive compns. and lithog. plates show improved chemical resistance and durability.

ST photosensitive lithog plate aq alkali developer; neg photosensitive lithog plate alkali developer; addn polymerizable phenolic monomer photopolymn lithog; hydroxyphenyl methacrylamide photopolymn neg lithog

IT Lithographic plates
(neg. photosensitive resin compns., lithog. plates, and their development)

IT 1830-78-0 3524-68-3 7300-91-6, N-(4-Hydroxyphenyl)maleimide
19243-95-9, N-(4-Hydroxyphenyl)methacrylamide
RL: DEV (Device component use); USES (Uses)
(neg. photosensitive resin compns., lithog. plates, and their development)

IT 7646-85-7DP, Zinc chloride, reaction products with diazo resin sulfates and ammonium hexafluorophosphate 16941-11-0DP, Ammonium hexafluorophosphate, reaction products with diazo resin sulfates and zinc chloride 77833-95-5P, Acrylonitrile-ethyl acrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid copolymer 180483-43-6P, Acrylonitrile-ethyl acrylate-ethyl methacrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid copolymer 186545-93-7DP, reaction products with zinc chloride and ammonium hexafluorophosphate
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(neg. photosensitive resin compns., lithog. plates, and their development)

IT 1202-25-1, Methyl 4-dimethylaminobenzoate 42573-57-9 82799-44-8, 2,4-Diethylthioxanthone
RL: CAT (Catalyst use); USES (Uses)
(polymerization initiators; neg. photosensitive resin compns., lithog. plates, and their development)

11/245136

L14 ANSWER 25 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:577031 CAPLUS
DN 125:208502
ED Entered STN: 27 Sep 1996
TI Negative-working photosensitive composition,
presensitized lithographic plate, and development thereof
IN Ishii, Nobuyuki; Kizu, Noryuki; Matsumura, Tomoyuki; Tsuji, Shigeo;
Matsuo, Fumyuki
PA Konica KK, Japan; Mitsubishi Kagaku KK
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-033
ICS G03F007-00; G03F007-021; G03F007-027; G03F007-028; G03F007-32
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08179505	A	19960712	JP 1994-336624	19941226
PRAI	JP 1994-336624		19941226		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08179505	ICM	G03F007-033
	ICS	G03F007-00; G03F007-021; G03F007-027; G03F007-028; G03F007-32
	IPCI	G03F0007-033 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-021 [ICS,6]; G03F0007-027 [ICS,6]; G03F0007-028 [ICS,6]; G03F0007-32 [ICS,6]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-028 [I,C*]; G03F0007-028 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-32 [I,C*]; G03F0007-32 [I,A]

AB The title composition contains an alkali-soluble polymer with acid value
≤100 having 10-40 mol% phenolic OH-containing unit. The polymer may be
a copolymer prepared from an addition-polymerizing monomer CH₂:CR₁R₂nnC₆H₄OH-p

(R1 =

H, Me; R₂ = CO₂, CONH; n = 0, 1) with other vinyl monomers. The lithog.
plate comprising a layer of the composition and a method of developing the
plate with alkaline developing solns. containing no organic solvent

substantially are

also claimed. The composition shows good developability with alkaline aqueous
solns.

and the plate exhibits good ink-receptivity and printing durability.

Thus, a photosensitive composition comprised Et acrylate-Et
methacrylate-acrylonitrile-methacrylic acid-4-hydroxyphenyl methacrylamide *
copolymer (acid value 6), dipentaerythritol tetraacrylate, a diazo resin
prepared by condensation of a p-hydroxybenzoic acid-4-diazodiphenylamine
sulfuric acid salt reactant with paraformaldehyde, and photopolymn
. initiators.

ST presensitized lithog plate alkali sol polymer; diazo resin presensitized
lithog plate; development alkali presensitized lithog plate

IT Lithographic plates

(presensitized, neg.-working, presensitized lithog. plate containing
alkali-soluble polymer with phenolic hydroxy group)

IT 180483-43-6P

RL: DEV (Device component use); PNU (Preparation, unclassified); POF
(Polymer in formulation); PREP (Preparation); USES (Uses)

(presensitized lithog. plate containing alkali-soluble polymer with phenolic
hydroxy group)

11/245136

IT 63971-15-3, Dipentaerythritol tetraacrylate
RL: DEV (Device component use); POF (Polymer in formulation); USES (Uses)
(presensitized lithog. plate containing alkali-soluble polymer with phenolic hydroxy group)
IT 7646-85-7DP, Zinc chloride, reaction products with diazo resin and ammonium hexafluorophosphate 16941-11-ODP, Ammonium hexafluorophosphate, reaction products with diazo resin 125785-09-3DP, reaction products with zinc chloride and ammonium hexafluorophosphate
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(presensitized lithog. plate containing alkali-soluble polymer with phenolic hydroxy group and diazo compound)

L14 ANSWER 26 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1994:712088 CAPLUS
DN 121:312088
ED Entered STN: 24 Dec 1994
TI Photosensitive composition for negative-working lithographic plate
IN Nakai, Hideyuki; Matsumura, Tomoyuki; Konuma, Tomohito; Murata, Masahisa; Tsuji, Shigeo
PA Konishiroku Photo Ind, Japan; Mitsubishi Chemical Industries Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-021
ICS G03F007-033; G03F007-038
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06186736	A	19940708	JP 1992-356275	19921221
PRAI	JP 1992-356275		19921221		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 06186736	ICM	G03F007-021
	ICS	G03F007-033; G03F007-038
	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]; G03F0007-033 [ICS,5]; G03F0007-038 [ICS,5]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-033 [I,C*]; G03F0007-038 [I,A]; G03F0007-033 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]

AB In the composition comprising a diazo resin and film-forming polymer, the polymer is a vinyl copolymer of (meth)acrylate with fluoroaliph. group (I) and CH₂:C(R₁)XYOH (R₁ = H, Me; X = COO, CONH, OCO, bond; Y = O-, m-, p-phenylene). The polymer is a vinyl copolymer of I and CH₂:C(R₁)COO(CH₂)_nOH (II; R₁ = H, Me; n = 3-10). The polymer is a mixture of a vinyl copolymer containing I and another vinyl copolymer containing II.

The composition shows high sensitivity, good developability, and ink adhesion.

ST lithog plate fluoroalkyl acrylate copolymer

IT Lithographic plates
(presensitized lithog. plate containing diazo resin and fluoroalkyl acrylate copolymer)

IT 158348-76-6 159460-13-6 159460-15-8 159460-16-9
159460-17-0 159460-18-1 159460-19-2 159460-20-5
159460-21-6 159460-22-7 159460-23-8 159460-24-9 159460-25-0
159460-26-1

RL: DEV (Device component use); USES (Uses)
(presensitized lithog. plate containing diazo resin and fluoroalkyl

11/245136

acrylate copolymer)
IT 7646-85-7DP, Zinc chloride (ZnCl₂), reaction product with diazo resin and hexafluorophosphate 16941-11-0DP, Ammonium hexafluorophosphate, reaction product with diazo resin and zinc chloride 125785-09-3DP, reaction product with zinc chloride and hexafluorophosphate
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(presensitized lithog. plate containing diazo resin and fluoroalkyl acrylate copolymer)

L14 ANSWER 27 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:689728 CAPLUS

DN 121:289728

ED Entered STN: 10 Dec 1994

TI Photosensitive compositions for negative-working lithographic plates

IN Sasa, Nobumasa; Akyama, Takeo

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-016

ICS G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06161101	A	19940607	JP 1992-317351	19921126
	JP 3215900	B2	20011009		
PRAI	JP 1992-317351		19921126		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 06161101	ICM	G03F007-016
	ICS	G03F007-029
	IPCI	G03F0007-016 [ICM,5]; G03F0007-029 [ICS,5]
	IPCR	G03F0007-016 [I,C*]; G03F0007-016 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]

AB Compns. containing a photosensitive microgel chemical-modified with a diazo compound are claimed. Photosensitive compns. containing an anionic photosensitive microgel whose counter cation on is ≥ 1 selected from onium salts and Fe-arene complexes are also claimed. Presensitized lithog. plates obtained from the compns. show high printing durability and photoresists obtained from the compns. show good etching resistance.

ST photosensitive compn diazo modified microgel; acidic microgel salt photosensitive compn; photoresist

photosensitive compn microgel; neg working photosensitive compn microgel; lithog plate photosensitive compn microgel

IT Resists

(photo-, photosensitive diazo-containing microgels or anionic microgels having onium salts or iron-arene complexes as counter cations for)

IT Lithographic plates

(presensitized, photosensitive diazo-containing microgels or anionic microgels having onium salts or iron-arene complexes as counter cations for)

IT 72063-23-1, Acrylonitrile-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate copolymer

RL: USES (Uses)

(pos.-working photosensitive compns. containing
photosensitive microgels and, for lithog. plates and
photoresists)

IT 158871-62-6DP, Allyl methacrylate-p-aminostyrene-1,4-butanediol
diacrylate-ethyl acrylate-methyl methacrylate copolymer, diazotized,
hexafluorophosphate 158994-39-9P, Allyl methacrylate-1,4-butanediol
diacrylate-ethyl acrylate-methacrylic acid anion-methyl methacrylate
copolymer p-diazodiphenylamine salt 158994-40-2P, Allyl
methacrylate-1,4-butanediol diacrylate-ethyl acrylate-methacrylic acid
anion-methyl methacrylate acid copolymer (η 6-benzene)(η 5-
cyanocyclopentadienyl)iron(II) salt 159094-21-0P, Allyl
methacrylate-1,4-butanediol diacrylate-ethyl acrylate-methyl
methacrylate-styrenesulfonic acid anion copolymer p-diazodiphenylamine
salt 159126-16-6P, Allyl methacrylate-1,4-butanediol diacrylate-ethyl
acrylate-methyl methacrylate-styrenesulfonic acid anion copolymer
diphenyliodonium salt
RL: PREP (Preparation)
(preparation of, for neg.-working photosensitive compns. for
lithog. plates and photoresists)

L14 ANSWER 28 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1994:311676 CAPLUS
DN 120:311676
ED Entered STN: 11 Jun 1994
TI Light-sensitive composition for negative type lithographic
printing plate
IN Konuma, Satoshi; Murata, Akihisa; Matsumura, Toshiyuki; Tsuji, Shigeo
PA Konica Corp., Japan; Mitsubishi Kasei Corp.
SO Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03F007-021
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 35

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 583962	A2	19940223	EP 1993-306427	19930813
	EP 583962	A3	19941117		
	EP 583962	B1	19970716		
	R: DE, FR, GB, NL				
	JP 06118642	A	19940428	JP 1993-210973	19930803
	US 5427887	A	19950627	US 1993-106699	19930816
PRAI	JP 1992-240019	A	19920817		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 583962	ICM	G03F007-021
	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]
JP 06118642	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]; G03F0007-00 [ICS,5]; G03F0007-033 [ICS,5]; G03F0007-038 [ICS,5]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]
US 5427887	IPCI	G03C0001-60 [ICM,6]; G03C0001-52 [ICM,6,C*]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]
	NCL	430/175.000; 430/157.000; 430/176.000; 430/302.000; 430/910.000

ck'd

ECLA G03F007/021

AB The light-sensitive composition comprises (A) a diazo resin and (B) an alkali-soluble and swellable polymer which is a vinyl copolymer containing, as a

constitutional unit, 0.1 to 10 mol % of a structure derived from an ester of acrylic acid or methacrylic acid having an C₈ alkyl.

ST photosensitive compn diazo resin acrylate polymer; lithog printing plate photosensitive compn; neg type lithog printing plate

IT Lithographic plates
(light-sensitive composition)

IT Diazo compounds
RL: USES (Uses)

(resin, light-sensitive composition containing, for lithog. printing plate)

IT 155266-11-8P 155266-12-9P 155266-13-0P 155266-14-1P
155266-15-2P 155266-16-3P 155266-17-4P
155266-18-5P 155266-19-6P 155266-20-9P 155266-21-0P
155266-22-1P 155266-23-2P 155266-24-3P
155266-25-4P 155266-26-5P 155266-27-6P 155266-28-7P
155266-29-8P 155266-30-1P 155266-31-2P
155266-32-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, for light-sensitive composition)

L14 ANSWER 29 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:458973 CAPLUS

DN 117:58973

ED Entered STN: 08 Aug 1992

TI Negative-working waterless presensitized lithographic plates

IN Kasakura, Akio; Tomiyasu, Hiroshi; Goto, Sei; Suzuki, Norihito

PA Mitsubishi Kasei Corp., Japan; Konica Co.

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03293669	A	19911225	JP 1990-95679	19900411
PRAI	JP 1990-95679		19900411		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 03293669	ICM	G03F007-00
	IPCI	G03F0007-00 [ICM,5]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]

AB The title plates are prepared by forming a primer layer, a photosensitive layer containing 1,2-naphthoquinone-2-diazido-4-sulfonic acid (I) ester and polymers having structural units containing phenolic OH groups., and a silicone rubber layer successively on a substrate. The neg.-working presensitized plates can be developed by aqueous alkaline solns. and show stability to safelight. Thus, a waterless presensitized lithog. plate was prepared by using a photosensitive layer containing I ester of pyrogallol-acetone resin and p-hydroxymethacrylanilide-acrylonitrile-Me methacrylate-2-hydroxyethyl methacrylate copolymer.

ST waterless presensitized lithog plate; photosensitive layer presensitized lithog plate; naphthoquinone diazide sulfonate lithog plate; phenolic copolymer presensitized lithog plate

IT Phenolic resins, compounds

11/245136

RL: USES (Uses)
(esters, with naphthoquinonediazidesulfonyl chloride, waterless
presensitized lithog. plate photosensitive layer using)
IT Lithographic plates
(waterless, presensitized, neg.-working, with good safelight stability)
IT 35464-74-5, m-Cresol-p-cresol-formaldehyde-phenol copolymer 87780-95-8,
Acrylonitrile-p-hydroxystyrene-styrene copolymer 117198-12-6
RL: USES (Uses)
(binder, waterless presensitized lithog. plate photosensitive
layer using)
IT 19243-95-9P, p-Hydroxymethacrylanilide
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and copolymn. of)
IT 920-46-7, Methacrylic acid chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxyaniline)
IT 123-30-8, p-Hydroxyaniline
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methacrylic acid chloride)
IT 25053-88-7D, Formaldehyde-p-cresol copolymer, ester with
1,2-naphthoquinonediazide-4-sulfonyl chloride 36451-09-9D,
1,2-Naphthoquinonediazide-4-sulfonyl chloride, ester with
acetone-pyrogallol copolymer or phenolic resin 38333-84-5D, ester with
1,2-naphthoquinonediazide-4-sulfonyl chloride
RL: USES (Uses)
(waterless presensitized lithog. plate photosensitive layer
using)

L14 ANSWER 30 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:438684 CAPLUS

DN 115:38684

ED Entered STN: 27 Jul 1991

TI Negative-working photosensitive compositions

IN Sanada, Shinichi

PA Toshiba Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-021

ICS H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

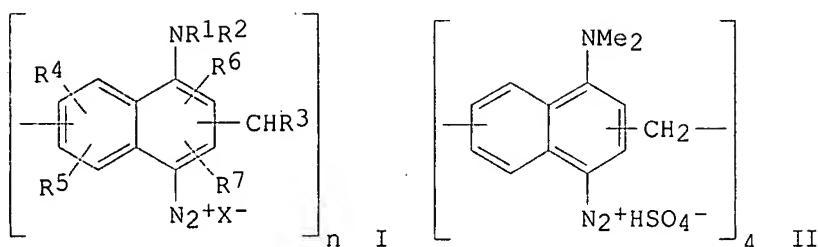
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03009359	A	19910117	JP 1989-143826	19890606
PRAI	JP 1989-143826		19890606		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 03009359	ICM	G03F007-021
	ICS	H01L021-027
	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]; H01L0021-027 [ICS,5]; H01L0021-02 [ICS,5,C*]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

GI



AB The title compns. contain diazo compds. I (R1-2 = alkyl, aryl, aralkyl; R3 = H, Me, Ph; R4-7 = H, alkyl, aryl, aralkyl, alkoxy, halo, OH, carboxy; X- = anion; n = 2-200). These compns. provide high sensitivity to g-line, high storage stability, and patterns with high mech. strength and transparency, and are useful as masks in fabrication of semiconductor devices, color filters, and printing plates. Thus, a tetramer II was obtained by reaction of a diazo compound with HCHO, and it (0.14 g) was dissolved in 140 g of 10% solution of 85:15 (mol) copolymer of hydroxyethyl methacrylate with dimethylaminoethyl acrylate quaternized with MeCl. This solution was applied to a glass wafer and dried to form a 1- μ m-thick layer. Exposure to 200 mJ/cm² g-line light and development with water gave a neg. pattern 0.91 μ m thick that resolved 2.5 μ m, with transmission 96.7, 98.3, and 99.1% at 400, 426, and 500 nm, resp. The pattern was not affected by heating at 180° for 1 h.

ST photoresist diazo g line sensitive

IT Resists

(photo-, neg.-working, diazo, g-line-sensitive, having high transparency)

IT 26443-74-3, Methacrylamide-methyl methacrylate copolymer

56592-54-2 134685-44-2

RL: USES (Uses)

(neg.-working photoresists containing diazo compds. and, g-line-sensitive, having high transparency)

IT 134685-43-1 134708-07-9 134708-08-0

RL: USES (Uses)

(neg.-working photoresists containing, g-line-sensitive, having high transparency)

L14 ANSWER 31 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:542342 CAPLUS

DN 113:142342

ED Entered STN: 13 Oct 1990

TI Negative-working photosensitive compositions for lithographic plates

IN Matsubara, Shinichi; Uehara, Masabumi; Fumiya, Shinichi; Katahashi, Eriko

PA Konica Co., Japan; Mitsubishi Kasei Corp.

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-021

ICS G03F007-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

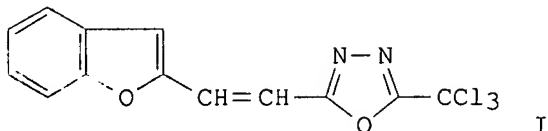
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 02111948	A	19900424	JP 1988-265846	19881021
PRAI	JP 1988-265846		19881021		

CLASS

11/245136

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 02111948	ICM	G03F007-021
	ICS	G03F007-027
	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]; G03F0007-027 [ICS,5]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]

GI



AB The title compns. contain (a) co-condensate of carboxyl- or OH-containing aroms. and aromatic diazo compds., (b) polymer binder having polymerizable unsatn., or photopolymerizable monomer, and (c) photopolymer initiator. These compns. are alkali-soluble, high developable, have high sensitivity, and do not produce stain by residual diazo component. Thus, a composition containing PF6 salt of p-hydroxybenzoic acid-4-diazo-2'-methoxydiphenylamine-HCHO condensate 1, p-hydroxyphenylmethacrylamide-acrylonitrile-Et acrylate-Me acrylate-methacrylic acid copolymer binder 10, photopolymer initiator I 0.2, trimethylolpropane triacrylate 1, Jurymer AC10L 0.6, Victoria Pure Blue BOH 0.2 parts, and solvents, was applied on anodized Al plate. Exposure and development of the obtained plates showed high sensitivity and developability.

ST photosensitive lithog plate sensitivity developability

IT Lithographic plates

(photosensitive, diazo, high sensitivity and developability)

IT 77833-95-5 90216-38-9 122988-13-0 125998-85-8
129542-14-9 129542-15-0 129542-16-1 129542-17-2 129542-18-3
129542-22-9 134621-72-0

RL: USES (Uses)

(photosensitive lithog. plates containing, high sensitivity and developability)

L14 ANSWER 32 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:542341 CAPLUS

DN 113:142341

ED Entered STN: 13 Oct 1990

TI Negative-working photosensitive compositions for lithographic plates

IN Matsubara, Shinichi; Uehara, Masabumi; Fumiya, Shinichi; Katahashi, Eriko

PA Konica Co., Japan; Mitsubishi Kasei Corp.

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-016

ICS G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02111947	A	19900424	JP 1988-265847	19881021
PRAI	JP 1988-265847		19881021		
CLASS					

11/245136

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 02111947	ICM	G03F007-016
	ICS	G03F007-004
	IPCI	G03F0007-016 [ICM,5]; G03F0007-004 [ICS,5]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]
AB	The title compns. contain diazo resins, alkali-soluble or alkali-swelling polymers, and acid anhydrides. These compns. provide increased developability. Thus, a composition containing PF6 salt of p-hydroxybenzoic acid-4-diazo diphenylamine sulfate-HCHO condensate 1, p-hydroxyphenylmethacrylamide- acrylonitrile-Et acrylate-Me acrylate-methacrylic acid copolymer 10, Ac2O 0.9, Victoria Pure Blue BOH 0.2 g, and solvent, was applied on anodized Al substrate. Patternwise exposed plate was developed in diluted developer with rubbing, and showed rapid complete development, when reference plates without Ac2O did not.	
ST	lithog plate photosensitive high developability;	
IT	lithographic plates	
	(photosensitive, acid anhydride-containing, for high developability)	
IT	85-44-9, Phthalic anhydride 108-24-7, Acetic anhydride 108-30-5, Succinic anhydride, uses and miscellaneous 108-31-6, Maleic anhydride, uses and miscellaneous 645-66-9, Lauric anhydride 2170-03-8, Itaconic anhydride	
	RL: USES (Uses)	
	(photosensitive compns. for lithog. plates containing, for high developability)	
IT	68541-74-2 77833-95-5 122988-13-0 125785-10-6 129343-21-1	
	RL: USES (Uses)	
	(photosensitive compns. for lithog. plates containing, high developability)	
L14	ANSWER 33 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN	
AN	1990:542333 CAPLUS	
DN	113:142333	
ED	Entered STN: 13 Oct 1990	
TI	Negative-working waterless lithographic plates comprising a photosensitive layer and a silicone rubber layer	
IN	Maeda, Yoshihiro	
PA	Mitsubishi Kasei Corp., Japan	
SO	Jpn. Kokai Tokkyo Koho, 13 pp.	
	CODEN: JKXXAF	
DT	Patent	
LA	Japanese	
IC	ICM	G03F007-021
	ICS	G03F007-00
CC	74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)	

FAN.CNT 1

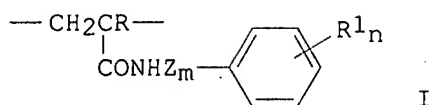
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 02004252	A	19900109	JP 1988-155688	19880623
PRAI JP 1988-155688		19880623		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 02004252	ICM	G03F007-021
	ICS	G03F007-00
	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]; G03F0007-00 [ICS,5]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-00

[I,C*]; G03F0007-00 [I,A]

GI



AB Neg.-working waterless presensitized lithog. plates have a silicone rubber layer on a substrate and, thereon, a photosensitive layer containing a photosensitive diazo resin and a polymer having 1-50 mol% of the structural unit I ($R = H, Me$; $R_1 = \text{alkyl, alkoxy}$; $Z = \text{alkylene}$; $m = 0, 1$; $n = 0-5$). The both layers show good adhesion to each other, and the plates exhibit good ink-repelling properties and ink-adhesion properties. Thus, SO 201 No.20 (polypropylene film) was coated with a composition containing

N-phenylmethacrylamide-acrylonitrile-Me acrylate-Et acrylate-methacrylic acid copolymer and hexafluorophosphate of p-diazophenylamine-paraformaldehyde polycondensation product and overcoated with a composition containing BY 16-801 (polydimethylsiloxane), methyltris(Me Et ketoxime)silane, and dibutyltin diacetate. The presensitized plate containing the photosensitive layer and the rubber layer was imagewise exposed through a neg. and developed to give a waterless lithog. plate, which gave high quality prints from the initial stage of printing and showed good printing durability.

ST waterless presensitized neg lithog plate; photosensitive diazo resin lithog plate; acrylamide deriv copolymer presensitized plate

IT Rubber, silicone, uses and miscellaneous

RL: USES (Uses)

(electrophotog. lithog. plate containing)

IT Lithographic plates

(neg.-working, waterless, electrophotog. preparation of, containing phenylacrylamide copolymer and diazo resin)

IT 126714-06-5

RL: USES (Uses)

(photosensitive layer containing, in lithog. plate)

IT 129334-40-3, Acrylonitrile-ethyl acrylate-methacrylic acid-methyl acrylate-N-phenylmethacrylamide copolymer 129334-42-5

129334-43-6 129334-44-7, Acrylonitrile-ethyl

acrylate-methacrylic acid-methyl acrylate-methyl methacrylate-N-phenylmethacrylamide copolymer

RL: USES (Uses)

(photosensitive layer containing, in lithog. plate, preparation of)

L14 ANSWER 34 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:523915 CAPLUS

DN 113:123915

ED Entered STN: 29 Sep 1990

TI Negative-working photosensitive compositions for lithographic plates

IN Uehara, Masabumi; Matsubara, Shinichi; Fumiya, Shinichi; Katahashi, Eriko

PA Konica Co., Japan; Mitsubishi Kasei Corp.

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-016

ICS G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

11/245136

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02111946	A	19900424	JP 1988-265845	19881021
PRAI	JP 1988-265845		19881021		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 02111946	ICM	G03F007-016
	ICS	G03F007-004
	IPCI	G03F0007-016 [ICM,5]; G03F0007-004 [ICS,5]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]

AB The title compns. contain diazo resins, o-quinonediazidesulfonic acid ester of alkali-insol. or hardly soluble phenol novolaks, and dyes that changes or loses color by acids. These compns. provide high ink affinity and easily seen visible image by exposure. Thus, a diazo resin PF6 salt was prepared from 4-hydroxyphenylmethacryl amide 4.43, 4-diazodiphenylamine sulfate 22.0, and HCHO 2.7 g. An alkali-soluble copolymer was also prepared from N-(4-hydroxyphenyl) methacrylamide 10, acrylonitrile 25, Et acrylate 60, and methacrylic acid 5 g. An alkali-insol. diazide ester was obtained from 32 g p-tert- butylphenol-formaldehyde novolak and o-naphthoquinonediazide 5-sulfonyl chloride 26 g. A composition containing the photosensitive diazo resin 5.0, the alkali-soluble copolymer 0.5, the alkali-insol. diazide ester 0.2, Victoria Pure Blue BOH 0.1, Jurymer AC10L 0.3 g, and solvent, was applied on anodized Al substrate to obtain a lithog. plate. Visible image with d. range 0.37 was obtained by exposure to metal halide lamp, and development gave lithog. plate that gave clean copies after 15 losses.

ST lithog plate novolak diazide ester; diazo lithog plate ink affinity

IT Lithographic plates

(photosensitive, diazo, visible image-producing, ink affinity of)

IT 2390-60-5 51257-93-3 59592-92-6 77833-95-5 84135-66-0
96536-79-7 129291-58-3 129343-25-5

RL: USES (Uses)

(photosensitive lithog. plates containing, visible image-producing, improved ink affinity in)

L14 ANSWER 35 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:129188 CAPLUS

DN 112:129188

ED Entered STN: 31 Mar 1990

TI Negative-working waterless presensitized lithographic plate

IN Maeda, Yoshihiro

PA Mitsubishi Kasei Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-71

ICS G03C001-00; G03F007-02; G03F007-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01173027	A	19890707	JP 1987-334956	19871228
PRAI	JP 1987-334956		19871228		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 01173027	ICM	G03C001-71

ICS G03C001-00; G03F007-02; G03F007-08
 IPCI G03C0001-71 [ICM,4]; G03C0001-00 [ICS,4]; G03F0007-02
 [ICS,4]; G03F0007-08 [ICS,4]
 IPCR G03F0007-09 [I,C*]; G03F0007-09 [I,A]; G03C0001-00
 [I,C*]; G03C0001-00 [I,A]; G03F0007-00 [I,C*];
 G03F0007-00 [I,A]

AB The title lithog. plate comprising a substrate, a silicone rubber layer,
 and a diazo photosensitive layer is characterized in that the
 photosensitive layer contains an organic solvent-soluble diazo resin and
 a polymer of the structure CRR1CR2[CONR3(X)nYOH] (R and R1 = H, halo,
 alkyl, aryl, carboxyl; R2 = H, halo, alkyl, aryl; R3 = H, alkyl, aryl,
 aralkyl; Y = aromatic moiety with or without a substituent; X = divalent
 organic

moiety bonding C in Y and N; and n = 0 or 1).

ST neg waterless presensitized lithog plate; diazo resin presensitized lithog
 plate; acrylamide polymer presensitized lithog plate

IT Lithographic plates

(presensitized, neg.-working, waterless, with diazonium compound-based
 photosensitive layers)

IT 99-96-7D, p-Hydroxybenzoic acid, reaction products with diazodiphenylamine
 sulfate zinc salt complex and paraformaldehyde 101-69-9D, reaction
 products with bis(hydroxymethyl)urea and sodium naphthalenesulfonate
 140-95-4D, reaction products with diazomethoxydiphenylamine hydrochloride
 and sodium naphthalenesulfonate 532-02-5D, Sodium naphthalene-2-
 sulfonate, reaction products with diazomethoxydiphenylamine hydrochloride
 and bis(hydroxymethyl)urea 16941-11-0D, Ammonium hexafluorophosphate,
 reaction products with diazodiphenylamine sulfate zinc salt complex and
 paraformaldehyde 30525-89-4D, Paraformaldehyde, reaction products with
 diazodiphenylamine sulfate zinc salt complex and ammonium
 hexafluorophosphate 122988-13-0 124221-48-3
 125650-67-1D, reaction products with paraformaldehyde and ammonium
 hexafluorophosphate

RL: USES (Uses)

(neg.-working waterless presensitized lithog. plate containing)

L14 ANSWER 36 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:564286 CAPLUS

DN 111:164286

ED Entered STN: 28 Oct 1989

TI Negative-working presensitized lithographic plates with a
 treated aluminum substrate and a photosensitive layer containing
 a lipophilic polymer and a diazo resin

IN Tomyasu, Hiroshi; Fumya, Shinichi; Katahashi, Eriko; Uehara, Masabumi;
 Matsubara, Shinichi

PA Mitsubishi Kasei Corp., Japan; Konica Co.

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-02

ICS B41N003-00; G03C001-71

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

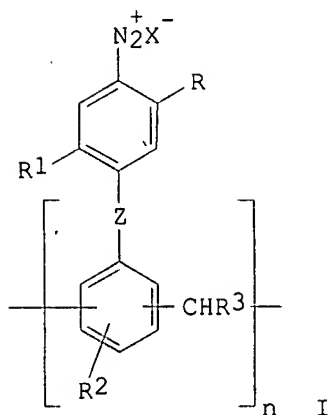
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01090451	A	19890406	JP 1987-248563	19871001
PRAI	JP 1987-248563		19871001		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 01090451	ICM	G03F007-02
	ICS	B41N003-00; G03C001-71

IPCI G03F0007-02 [ICM,4]; B41N0003-00 [ICS,4]; G03C0001-71 [ICS,4]
 IPCR B41N0003-00 [I,C*]; B41N0003-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]

GI



- AB An Al or Al alloy plate is electrolytically grained in an aqueous HNO₃, etched with an acid or alkali at <45° after washing with water, subjected to anodic oxidation, and then coated with a photosensitive layer comprising a lipophilic polymer having a structural unit from monomers selected from (meth)acrylamides and (meth)acrylic esters which have OH group and a high mol. weight diazo resin having a structural unit I (R, R₁, R₂ = H, alkyl, alkoxy; R₃ = H, alkyl, Ph; X = anion; Z = NH, S, O; n = ≥1), ≥20 mol% of the resin having n ≥ 5, to give a neg.-working presensitized lithog. plate. The presensitized plate exhibits good sensitivity, printing durability, and storage stability. Thus, N-(4-hydroxyphenyl)methacrylamide, acrylonitrile, Et acrylate, and methacrylic acid were copolymd. to give a lipophilic copolymer, while p-diazophenylamine H₂SO₄ salt was reacted with paraformaldehyde and treated with ammonium hexafluorophosphate to obtain a diazo resin. A pretreated Al plate was electrolytically grained in an aqueous HNO₃, washed with water, etched in an aqueous NaOH at 30°, and then anodized in an aqueous H₂SO₄ to give a substrate. The substrate was coated with a composition containing the polymer, the diazo resin, poly(acrylic acid), tartaric acid, and Victoria Pure Blue BOH (dye) to give a presensitized plate, from which a high quality lithog. plate was obtained.
- ST neg working presensitized lithog plate; lipophilic polymer presensitized plate; diazo resin presensitized lithog plate
- IT Diazo compounds
 RL: USES (Uses)
 (polymers, for presensitized lithog. plates)
- IT Lithographic plates
 (presensitized, neg.-working, containing acrylic lipophilic polymers and diazo resins, with good sensitivity and printing durability and storage stability)
- IT 4065-45-6D, 2-Hydroxy-4-methoxy-benzophenone-5-sulfonic acid, reactant with diazophenylamine sulfonic acid salt-paraformaldehyde copolymer 9070-36-4D, reactant with ammonium hexafluorophosphate 16941-11-0D, Ammonium hexafluorophosphate, reactant with diazophenylamine sulfonic acid salt-paraformaldehyde copolymer
 RL: USES (Uses)
 (diazo resin, for presensitized lithog. plates)
- IT 29763-27-7 77833-95-5, Acrylonitrile-ethyl acrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid copolymer 96536-79-7

11/245136

RL: USES (Uses)
(presensitized lithog. plate photosensitive layer containing)
IT 37321-70-3, AA 1050
RL: USES (Uses)
(support, for presensitized lithog. plate)

L14 ANSWER 37 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:202924 CAPLUS
DN 110:202924
ED Entered STN: 26 May 1989
TI Negative-type photoresist for printing platemaking
IN Maeda, Yoshihiro; Katahashi, Eriko; Goto, Sei; Suzuki, Norihito
PA Mitsubishi Chemical Industries Co., Ltd., Japan; Konica Co.
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-71
ICS G03C001-00; G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 63174037	A	19880718	JP 1987-6886	19870114
PRAI	JP 1987-6886		19870114		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 63174037	ICM	G03C001-71
	ICS	G03C001-00; G03F007-00
	IPCI	G03C0001-71 [ICM,4]; G03C0001-00 [ICS,4]; G03F0007-00 [ICS,4]

AB In the title photosensitive composition comprising a photosensitive diazo resin, a lipophilic polymer, and a colorant, the latter is a reaction product between C6-30 organic compound having reactive groups capable of reacting with NH₂, OH, CO₂H and an anthraquinone-, azo-, azine-, or triphenylmethane-type dye possessing ≥1 NH₂, OH, or CO₂H groups. The material is especially useful in presensitized lithog. plates, and dye leaching from the image-bearing regions is minimized.

ST photoresist printing platemaking; dye presensitized lithog plate

IT Resists

(photo-, neg.-working, diazo resins using)

IT Printing plates

(presensitized, neg.-working photoresist for)

IT 120419-68-3 120419-69-4 120419-70-7

RL: USES (Uses)

(colorant, neg.-working photoresist composition containing)

IT 9070-36-4D, reaction product with β-naphthyl coupling agent

RL: USES (Uses)

(diazo resin, neg.-working photoresist composition containing)

IT 77833-95-5

RL: USES (Uses)

(neg.-working photoresist composition containing lipophilic)

L14 ANSWER 38 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1988:177246 CAPLUS
DN 108:177246
ED Entered STN: 13 May 1988
TI Negative-working photosensitive compositions
IN Shimizu, Shigeki; Maeda, Yoshihiro; Goto, Sei; Suzuki, Norihito
PA Mitsubishi Chemical Industries Co., Ltd., Japan; Konishiroku Photo Industry Co., Ltd.

11/245136

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-71

ICS C08L033-04; G03F007-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 37

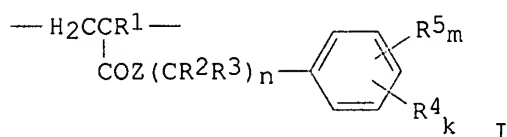
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62184456	A	19870812	JP 1986-24979	19860208
PRAI	JP 1986-24979		19860208		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 62184456	ICM	G03C001-71
	ICS	C08L033-04; G03F007-08
	IPCI	G03C0001-71 [ICM,4]; C08L0033-04 [ICS,4]; C08L0033-00 [ICS,4,C*]; G03F0007-08 [ICS,4]
	IPCR	C08L0033-00 [I,C*]; C08L0033-04 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]; G03F0007-021 [I,A]

GI



AB The title compns. contain a diazo compound and a polymer having repeating units of the formula I (Z = O, NH; R¹-R³ = H, alkyl; R⁴ = alkyl, haloalkyl, halo; R⁵ = hydroxyalkyl; k = 0-4; m = 1-3; n = 0-4). The compns. are mainly useful for preparing printing plates having a high printability. Thus, 87:13 2-hydroxymethylphenyl acrylate-methacrylic acid copolymer 5, p-diazodiphenylamine-HCHO condensate PF₆ salt 0.5, an acrylic copolymer 0.05, Victoria Pure Blue BOH 0.1 g, and Me Cellosolve was applied on an anodized and sealed Al plate. The imagewise exposed plate was developed with a Na metasilicate solution to give a printing plate which gave 100,000 clean prints vs. 20,000 for a control plate that used 9:1 2-hydroxyethyl methacrylate-methacrylic acid copolymer instead of the copolymer of the invention.

ST printing plate diazo acrylic polymer; diazo presensitized plate high printability

IT Printing plates

(presensitized, containing diazo compound and phenyl-containing acrylic polymer)

IT 68541-74-2 77833-95-5 113930-44-2 113930-45-3 113930-47-5
113930-49-7 113930-51-1 113930-53-3

RL: USES (Uses)

(presensitized printing plates containing diazo compound and)

L14 ANSWER 39 OF 39 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1987:415609 CAPLUS

DN 107:15609

ED Entered STN: 11 Jul 1987

TI Negative-working photolithographic compositions

IN Misu, Hiroshi; Nishikawa, Nobuo; Sekiya, Toshiyuki; Aotani, Norimasa

PA Fuji Photo Film Co., Ltd., Japan

11/245136

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-71

ICS G03F007-08

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61284759	A	19861215	JP 1985-125461	19850610
	JP 05002139	B	19930111		
PRAI	JP 1985-125461		19850610		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 61284759	ICM	G03C001-71
	ICS	G03F007-08
	IPCI	G03C0001-71 [ICM,4]; G03F0007-08 [ICS,4]
	IPCR	G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]; G03F0007-021 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]

AB The title compns. for lithog. plates developable in aqueous alkali contain photosensitive diazo compds. and copolymers having acid value 10-100 and having monomer units (A) (meth)acrylamides or (meth)acrylate esters having aromatic OH groups, (B) (meth)acrylates or (meth)acrylamides having benzyl (or benzyl derivative) groups, (C) acrylonitrile and/or methacrylonitrile, and (D) α,β -unsatd. acids. The compns. provide plates with good developability and ink acceptability. Thus, N-(4-hydroxyphenyl)methacrylamide 23, acrylonitrile 12, methacrylic acid 9, benzyl methacrylate (I) 26, and Et acrylate 40 g were polymerized in the presence of azobisisobutyronitrile. A cleaned, polished, etched, anodized and Na silicate-treated Al plate was coated with a composition containing the copolymer 5, PF6 salt of p-diazodiphenylamine-HCHO condensate 0.5, Victoria Pure Blue 0.15, Na tert-butylnaphthalenesulfonate 0.15, phosphorous acid 0.1 g, and solvents, and dried to obtain a material having 1.5 g/m² layer. The exposed and processed material gave 40,000 clean prints vs. 15,000 for a control material prepared using Et acrylate instead of I.

ST photolithog plate high ink acceptability; copolymer benzyl contg monomer photolithog

IT Lithographic plates

(photo-, neg.-working, diazo compound and copolymers for)

IT 108819-46-1 108819-47-2 108819-48-3

108819-49-4 108819-50-7

RL: USES (Uses)

(photolithog. composition containing, neg.-working)

=> d his

(FILE 'HOME' ENTERED AT 18:01:00 ON 26 JUL 2007)

FILE 'CAPLUS' ENTERED AT 18:01:15 ON 26 JUL 2007

E WO-2005091072/PN

L1 1 S E3

FILE 'REGISTRY' ENTERED AT 18:03:50 ON 26 JUL 2007

L2 1 S 865783-27-3

FILE 'REGISTRY' ENTERED AT 18:04:24 ON 26 JUL 2007

11/245136

L3 1 S 19243-95-9/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY
L4 1 S 865783-28-4
L5 1 S 865783-29-5
L6 1 S 865783-30-8
L7 1 S 865783-31-9
L8 1 S 865783-34-2
L9 2 S 865783-35-3 OR 865783-36-4
L10 0 S 19243-95-9CRN
L11 372 S 19243-95-9/CRN

FILE 'CAPLUS' ENTERED AT 18:07:32 ON 26 JUL 2007

L12 503 S L11
L13 452 S L12 AND PHOTO?
L14 39 S L13 AND NEGATIV?

=> s 113 not 114

L15 413 L13 NOT L14

=> s 115 and plat?

1075758 PLAT?

L16 385 L15 AND PLAT?

=> s 115 and polyacrylate

24015 POLYACRYLATE

L17 1 L15 AND POLYACRYLATE

=> d all

L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:318727 CAPLUS
DN 145:84051
ED Entered STN: 06 Apr 2006
TI Vinyl polymer for photosensitive lithographic printing plate
IN Yao, Xinding; Men, Hongwei; Liu, Wei; Chai, Tinghui; Gao, Yingxin; Li, Jianbo
PA The Second Film Factory of Lucky Group, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 16 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1752117	A	20060329	CN 2004-10060525	20040920
PRAI	CN 2004-10060525		20040920		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CN 1752117	IPCI	C08F0020-10 [A]; C08F0020-00 [C*]; G03F0007-004 [A]; G03F0007-022 [A]
	IPCR	C08F0020-00 [I,C]; C08F0020-10 [I,A]

AB The vinyl polymer preferably contains 20-40 alkali-soluble structural unit, 20-40 alkali-soluble maleimide structural unit, 20-40wt% carboxylate structural unit. The photosensitive lithog. printing plate contains photosensitive coating layer containing ortho-naphthoquinone disazo compound, the alkali-soluble vinyl polymer and optionally cellulose derivative(e.g., Bu acetate cellulose), and hydrophilic coating containing mainly sodium polyacrylate. The ortho-naphthoquinone disazo compound is prepared by esterifying

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1,2,5-diazosulfonyl chloride and pyrogallol-acetone resin. Thus, the vinyl polymer was prepared from 7.8g N-(4-hydroxyphenyl)methacrylamide, 4.5g N-(4-sulfonamidophenyl) maleimide and 3.2g Bu methacrylate in 40g N,N-dimethylformamide in the presence of 0.18g benzoyl peroxide.

ST vinyl polymer photosensitive lithog printing plate

IT Printing plates

(vinyl polymer for photosensitive lithog. printing plate)

IT 892498-75-8P 892498-77-0P 892498-79-2P

892498-81-6P 892498-83-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(vinyl polymer for photosensitive lithog. printing plate)

IT 9003-01-4D, Poly(acrylic acid), sodium salts 9004-36-8

RL: TEM (Technical or engineered material use); USES (Uses)

(vinyl polymer for photosensitive lithog. printing plate)

=> d his

(FILE 'HOME' ENTERED AT 18:01:00 ON 26 JUL 2007)

FILE 'CAPLUS' ENTERED AT 18:01:15 ON 26 JUL 2007

E WO-2005091072/PN

L1 1 S E3

FILE 'REGISTRY' ENTERED AT 18:03:50 ON 26 JUL 2007

L2 1 S 865783-27-3

FILE 'REGISTRY' ENTERED AT 18:04:24 ON 26 JUL 2007

L3 1 S 19243-95-9/RN

SET NOTICE 1 DISPLAY

SET NOTICE LOGIN DISPLAY

L4 1 S 865783-28-4

L5 1 S 865783-29-5

L6 1 S 865783-30-8

L7 1 S 865783-31-9

L8 1 S 865783-34-2

L9 2 S 865783-35-3 OR 865783-36-4

L10 0 S 19243-95-9CRN

L11 372 S 19243-95-9/CRN

FILE 'CAPLUS' ENTERED AT 18:07:32 ON 26 JUL 2007

L12 503 S L11

L13 452 S L12 AND PHOTO?

L14 39 S L13 AND NEGATIV?

L15 413 S L13 NOT L14

L16 385 S L15 AND PLAT?

L17 1 S L15 AND POLYACRYLATE

=> s l15 and photoresist?

59651 PHOTORESIST?

L18 42 L15 AND PHOTORESIST?

=> d all 1-42

L18 ANSWER 1 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:1176749 CAPLUS

DN 145:480455

ED Entered STN: 09 Nov 2006

TI Hydroxyacrylanilide polymers for nonaqueous coating on photoresist micropatterns in heat shrinking

IN Abe, Takeyoshi; Sugiura, Makoto

PA JSR Ltd., Japan

11/245136

SO Jpn. Kokai Tokkyo Koho, 21pp.
CODEN: JKXXAF
DT Patent
LA Japanese
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006307179	A	20061109	JP 2006-82967	20060324
PRAI	JP 2005-93384	A	20050329		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2006307179	IPCI	C08F0220-58 [I,A]; G03F0007-033 [I,A]; G03F0007-40 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]; C08F0220-12 [I,A]; C08F0220-00 [I,C*]; C08F0212-08 [I,A]; C08F0212-00 [I,C*]
	IPCR	C08F0220-00 [I,C]; C08F0220-58 [I,A]; C08F0212-00 [I,C]; C08F0212-08 [I,A]; C08F0220-12 [I,A]; G03F0007-033 [I,C]; G03F0007-033 [I,A]; G03F0007-40 [I,C]; G03F0007-40 [I,A]; H01L0021-02 [I,C]; H01L0021-027 [I,A]
	FTERM	2H025/AA02; 2H025/AA03; 2H025/AB16; 2H025/AD05; 2H025/FA33; 2H096/AA25; 2H096/BA01; 2H096/BA09; 2H096/HA05; 4J100/AB02R; 4J100/AL03Q; 4J100/AL08Q; 4J100/AM19P; 4J100/BA03P; 4J100/BA03Q; 4J100/BA03R; 4J100/BA04R; 4J100/BB18Q; 4J100/BC07Q; 4J100/BC43P; 4J100/CA04; 4J100/CA05; 4J100/DA01; 4J100/JA38

AB The invention relates to polymers with Mw (by GPC, to standard polystyrene) 1000-500,000 having repeating units CH₂CRCONHQ1 and those selected from CH₂CR'CO₂R1 and CH₂CR''Q₂ [R, R', R'' = H, Me; R1 = monovalent organic group; Q1 = p-hydroxyphenyl; Q2 = (un)substituted Ph, substituent = monovalent organic group]. Photoresist patterns with high resolution by heat shrinking are achieved with this invention.

ST hydroxyacrylanilide polymer photoresist coating heat shrinking resolu

IT Photoresists

(hydroxyacrylanilide polymers for nonaq. coating on photoresist micropatterns in heat shrinking)

IT 914081-79-1P 914081-80-4P 914081-81-5P
914081-82-6P 914081-83-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(hydroxyacrylanilide polymers for nonaq. coating on photoresist micropatterns in heat shrinking)

L18 ANSWER 2 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1288892 CAPLUS

DN 144:43229

ED Entered STN: 09 Dec 2005

TI Resin composition for forming fine pattern and method for forming fine pattern

IN Sakakibara, Hirokazu; Abe, Takayoshi; Chiba, Takashi; Kimura, Toru

PA JSR Corporation, Japan

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM G03F0007-40

ICS H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005116776	A1	20051208	WO 2005-JP9394	20050524
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1757990	A1	20070228	EP 2005-743737	20050524
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
PRAI	JP 2004-156741	A	20040526		
	JP 2004-351295	A	20041203		
	WO 2005-JP9394	W	20050524		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005116776	ICM	G03F007-40
	ICS	H01L021-027
	IPCI	G03F0007-40 [ICM,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]
	IPCR	G03F0007-40 [I,C*]; G03F0007-40 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
	ECLA	G03F007/40; H01L021/027B6B
EP 1757990	IPCI	G03F0007-40 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	IPCR	G03F0007-40 [I,C]; G03F0007-40 [I,A]; H01L0021-02 [I,C]; H01L0021-027 [I,A]
	ECLA	G03F007/40; H01L021/027B6B

AB Disclosed is a resin composition which is provided on a resist pattern that is formed using a photoresist when a fine pattern is formed through a heat treatment of the resist pattern. The resin composition enables to have the resist pattern shrink smoothly by the heat treatment, and can be easily removed by a following treatment using an aqueous alkali solution. Also disclosed is a method for efficiently forming a fine resist pattern which uses such a resin composition. The resin composition contains a resin containing a hydroxyl group, a crosslinking component, and an alc. solvent containing not more than 10 weight% of water relative to the total solvent. The alc. solvent is a monohydric alc. having 1-8 carbon atoms.

ST resin compn photoresist photolithog

IT Photolithography

Photoresists

(resin composition for forming fine pattern and method for forming fine pattern)

IT Aminoplasts

RL: TEM (Technical or engineered material use); USES (Uses)

(resin composition for forming fine pattern and method for forming fine pattern)

IT 9003-08-1, Cymel 300 870675-67-5

RL: TEM (Technical or engineered material use); USES (Uses)

(crosslinker; resin composition for forming fine pattern and method for forming fine pattern)

IT 111-27-3, 1-Hexanol, uses

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RL: NUU (Other use, unclassified); USES (Uses)
(resin composition for forming fine pattern and method for forming fine pattern)

IT 73310-44-8P, p-Hydroxymethacrylanilide-styrene copolymer
95418-59-0P, 4-Tert-Butoxystyrene-styrene copolymer 286411-41-4P,
4-Tert-Butoxystyrene-4-methoxystyrene copolymer 870675-63-1P,
p-Hydroxymethacrylanilide-tert-butyl methacrylate copolymer
870675-64-2P, p-Hydroxymethacrylanilide-4-tert-butoxystyrene
copolymer 870675-65-3P, p-Hydroxymethacrylanilide-4,4,4-
Trifluoro-3-hydroxy-1-methyl-3-(trifluoromethyl)butyl 2-methacrylate
copolymer 870675-66-4P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin composition for forming fine pattern and method for forming fine pattern)

IT 71-36-3, 1-Butanol, uses 590-36-3, 2-Methyl-2-pentanol

RL: NUU (Other use, unclassified); USES (Uses)
(solvent; resin composition for forming fine pattern and method for forming fine pattern)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Clariant International Ltd; EP 1152036 A1 2001 CAPLUS
- (2) Clariant International Ltd; CN 1314931 A 2001
- (3) Clariant International Ltd; JP 200119860 A 2001
- (4) Clariant International Ltd; WO 2001735 A1 2001
- (5) Clariant International Ltd; US 6555607 B1 2001 CAPLUS
- (6) Fujitsu Ltd; EP 1315997 A1 2003 CAPLUS
- (7) Fujitsu Ltd; JP 2003131400 A 2003 CAPLUS
- (8) Fujitsu Ltd; WO 200314830 A1 2003
- (9) Fujitsu Ltd; US 2003175624 A1 2003 CAPLUS
- (10) Mitsubishi Electric Corp; CN 1309416 A 2001 CAPLUS
- (11) Mitsubishi Electric Corp; JP 2001228616 A 2001 CAPLUS
- (12) Mitsubishi Electric Corp; TW 466583 B 2001 CAPLUS

L18 ANSWER 3 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1241189 CAPLUS

DN 143:485834

ED Entered STN: 24 Nov 2005

TI Antireflective film-forming composition containing vinyl ether compound
for photoresist pattern

IN Hatanaka, Tadashi; Kimura, Shigeo; Enomoto, Tomoyuki

PA Nissan Chemical Industries, Ltd., Japan

SO PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM G03F007-11

ICS G03F007-20; G03F007-38; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005111724	A1	20051124	WO 2005-JP8617	20050511
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG

EP 1757987 A1 20070228 EP 2005-739255 20050511
 R: DE, FR, GB, IT, NL
 CN 1954265 A 20070425 CN 2005-80015398 20050511
 PRAI JP 2004-144625 A 20040514
 JP 2004-353627 A 20041207
 WO 2005-JP8617 W 20050511

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005111724	ICM	G03F007-11
	ICS	G03F007-20; G03F007-38; H01L021-027
	IPCI	G03F0007-11 [ICM,7]; G03F0007-20 [ICS,7]; G03F0007-38 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]
	IPCR	G03F0007-11 [I,C*]; G03F0007-11 [I,A]; G03F0007-20 [I,C*]; G03F0007-20 [I,A]; G03F0007-38 [I,C*]; G03F0007-38 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
EP 1757987	ECLA	G03F007/039C; G03F007/09A; G03F007/095; G03F007/16Z
	IPCI	G03F0007-11 [I,A]; G03F0007-20 [I,A]; G03F0007-38 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	IPCR	G03F0007-11 [I,C]; G03F0007-11 [I,A]; G03F0007-20 [I,C]; G03F0007-20 [I,A]; G03F0007-38 [I,C]; G03F0007-38 [I,A]; H01L0021-02 [I,C]; H01L0021-027 [I,A]
CN 1954265	ECLA	G03F007/039C; G03F007/09A; G03F007/095; G03F007/16Z
	IPCI	G03F0007-11 [I,A]; G03F0007-20 [I,A]; G03F0007-38 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]

AB Disclosed is an antireflective film-forming composition for forming an antireflective film which is used in the lithog. process during semiconductor device production and can be developed with an alkaline developer for photoresists. Also disclosed is a method for forming a photoresist pattern using such an antireflective film-forming composition. The antireflective film-forming composition contains a compound having at least two vinyl ether groups, an alkali-soluble compound having at least two phenolic hydroxy groups or carboxyl groups, a photoacid generator and a solvent.

ST antireflective film compn vinyl ether photoresist

IT Antireflective films

Photolithography

Photoresists

Semiconductor device fabrication

(antireflective film-forming composition containing vinyl ether compound for photoresist pattern)

IT 2451-62-9, Tris(2,3-epoxypropyl) isocyanurate 83511-07-3D,

3,7-Dihydroxy-2-naphthoic acid, reaction product with

RL: RCT (Reactant); RACT (Reactant or reagent)

(antireflective film-forming composition containing vinyl ether compound for photoresist pattern)

IT 869792-92-7P 869792-93-8P 869792-94-9P 869792-95-0P

869792-96-1P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(antireflective film-forming composition containing vinyl ether compound for photoresist pattern)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Calriant International Ltd; EP 001466214 A1 2003 CAPLUS

(2) Calriant International Ltd; US 20030215736 A2 2003

11/245136

- (3) Caltriant International Ltd; WO 2003058345 A2 2003 CAPLUS
- (4) Caltriant International Ltd; JP 2005514657 A 2003
- (5) Nitto Denko Corp; JP 06-161110 A 1994 CAPLUS
- (6) Samsung Electronics Co Ltd; US 2003162120 A1 2003
- (7) Samsung Electronics Co Ltd; JP 2003270793 A 2003 CAPLUS
- (8) Samsung Electronics Co Ltd; CN 1484094 A 2004 CAPLUS
- (9) Samsung Electronics Co Ltd; US 2004018451 A1 2004
- (10) Samsung Electronics Co Ltd; JP 200454286 A 2004
- (11) Shipley Co Inc; EP 00542008 A1 1994 CAPLUS
- (12) Shipley Co Inc; US 006165697 A 1994 CAPLUS
- (13) Shipley Co Inc; JP 06-118631 A 1994 CAPLUS

L18 ANSWER 4 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1049905 CAPLUS

DN 143:356609

ED Entered STN: 30 Sep 2005

TI Positively radiation-sensitive resin composition

IN Nishikawa, Kouji; Iwanaga, Shinichiro

PA JSR Corporation, Japan

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM G03F007-039

ICS C08F220-58; G03F007-033; G03F007-20; H01L021-027; H01L021-60

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 56

FAN.CNT 1

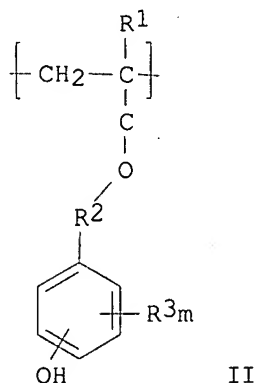
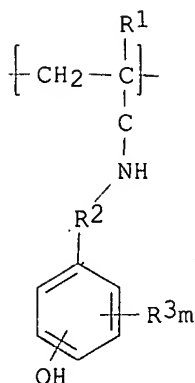
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005091074	A1	20050929	WO 2005-JP5398	20050324
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	EP 1729176	A1	20061206	EP 2005-721412	20050324
	R: DE, FR, IT				
	CN 1934499	A	20070321	CN 2005-80009064	20050324
PRAI	JP 2004-87520	A	20040324		
	WO 2005-JP5398	W	20050324		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005091074	ICM	G03F007-039
	ICS	C08F220-58; G03F007-033; G03F007-20; H01L021-027; H01L021-60
	IPCI	G03F0007-039 [ICM,7]; C08F0220-58 [ICS,7]; C08F0220-00 [ICS,7,C*]; G03F0007-033 [ICS,7]; G03F0007-20 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-60 [ICS,7]; H01L0021-02 [ICS,7,C*]
	IPCR	C08F0220-00 [I,C*]; C08F0220-58 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; G03F0007-20 [I,C*]; G03F0007-20 [I,A]; G03F0007-40 [I,C*]; G03F0007-40 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H01L0021-60

[I,A]
 ECLA G03F007/40D; C25D005/02B; G03F007/039C; G03F007/40;
 H01L021/60B2
 EP 1729176 IPCI G03F0007-039 [I,A]; C08F0220-58 [I,A]; C08F0220-00
 [I,C*]; G03F0007-033 [I,A]; G03F0007-20 [I,A];
 H01L0021-027 [I,A]; H01L0021-60 [I,A]; H01L0021-02
 [I,C*]
 IPCR G03F0007-039 [I,C]; G03F0007-039 [I,A]; C08F0220-00
 [I,C]; C08F0220-58 [I,A]; G03F0007-033 [I,C];
 G03F0007-033 [I,A]; G03F0007-20 [I,C]; G03F0007-20
 [I,A]; G03F0007-40 [I,C*]; G03F0007-40 [I,A];
 H01L0021-02 [I,C]; H01L0021-027 [I,A]; H01L0021-60
 [I,A]
 ECLA G03F007/40D; C25D005/02B; G03F007/039C; G03F007/40;
 H01L021/60B2
 CN 1934499 IPCI G03F0007-039 [I,A]; C08F0220-58 [I,A]; C08F0220-00
 [I,C*]; G03F0007-033 [I,A]; G03F0007-20 [I,A];
 H01L0021-027 [I,A]; H01L0021-60 [I,A]; H01L0021-02
 [I,C*]
 ECLA G03F007/40D; C25D005/02B; G03F007/039C; G03F007/40;
 H01L021/60B2

GI



AB A production process by which thick deposits, such as bumps or wirings, can be formed by plating with satisfactory precision; a pos. radiation-sensitive resin composition which is suitable for use in the production process and is excellent in sensitivity, resolution, etc.; and a transfer film comprising the composition. The pos. radiation-sensitive resin composition comprises (A) a polymer having structural units (a) represented by the following general formula I and/or II ($R_1 = \text{H, methyl}$; $R_2 = -(\text{CH}_2)_n-$; $n = \text{integer } 0-30$; $R_3 = \text{C1-4 alkyl}$; $m = 0-4 \text{ integer}$) and an acid-dissociable functional group (b), (B) an ingredient which generates an acid upon irradiation with a radiation, and (C) an organic solvent. A pos. radiation-sensitive resin film comprising the composition can also be produced.

ST pos radiation resin compn

IT Photoresists
 (dry-film; pos. radiation-sensitive resin composition)

IT Electrodeposition
 Positive photoresists
 (pos. radiation-sensitive resin composition).

IT 865783-70-6P, N-(p-Hydroxyphenyl)methacrylamide-p-Isopropenylphenol-2-Hydroxyethyl acrylate-Isobornyl acrylate-2-Phenyl-2-propyl methacrylate copolymer 865783-71-7P, N-(p-Hydroxyphenyl)methacrylamide-p-Isopropenylphenol-2-Hydroxyethyl acrylate-2-Phenyl-2-propyl methacrylate copolymer 865783-72-8P,

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N-(p-Hydroxyphenyl)methacrylamide-p-Isopropenylphenol-2-Hydroxyethyl
acrylate-2-Propenoic acid, 1-methyl-1-phenylethyl ester copolymer
865783-73-9P, 3,5-Dimethyl-4-hydroxybenzyl acrylate-p-Isopropenylphenol-2-
Hydroxyethyl acrylate-1-methyl-1-phenylethyl acrylate copolymer
865783-74-0P, N-(p-Hydroxyphenyl)methacrylamide-methacrylic
acid-2-Hydroxyethyl acrylate-2-Phenyl-2-propyl methacrylate copolymer
865783-75-1P, 4-Hydroxyphenyl methacrylate-p-Isopropenylphenol-2-
Hydroxyethyl acrylate-benzyl acrylate-tert-butyl acrylate copolymer
865783-76-2P, 4-Hydroxyphenyl methacrylate-p-Isopropenylphenol-2-
Hydroxyethyl acrylate-Isobornyl acrylate-tert-butyl acrylate copolymer
865783-77-3P, 4-Hydroxyphenyl methacrylate-p-Isopropenylphenol-2-
Hydroxyethyl acrylate-benzyl acrylate-tert-butyl methacrylate copolymer
865783-78-4P, N-(p-Hydroxyphenyl)methacrylamide-p-
Isopropenylphenol-benzyl acrylate-tert-butyl acrylate copolymer
865783-79-5P, N-(p-Hydroxyphenyl)methacrylamide-p-
Isopropenylphenol-Isobornyl acrylate-tert-butyl acrylate copolymer
865783-80-8P, N-(p-Hydroxyphenyl)methacrylamide-p-
Isopropenylphenol-benzyl acrylate-tert-butyl methacrylate copolymer
865783-81-9P, N-(p-Hydroxyphenyl)methacrylamide-p-
Isopropenylphenol-1-methyl-1-phenylethyl 2-propenoate copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)

(invention's resin in pos. radiation-sensitive resin composition)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Jsr Corp; JP 2001281863 A 2001 CAPLUS

(2) Mitsubishi Electric Corp; JP 2000122283 A 2000 CAPLUS

L18 ANSWER 5 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:568185 CAPLUS

DN 141:114060

ED Entered STN: 16 Jul 2004

TI Positive type photosensitive image-forming materials and
compositions workable with an infrared laser

IN Miyake, Hideo; Kawauchi, Ikuo

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 49 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B41M005-36

ICS B41C001-10; G03F007-004

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1437232	A2	20040714	EP 2004-8648	19981016
	EP 1437232	A3	20040728		
	EP 1437232	B1	20070103		
	R: DE, GB				
	JP 11119418	A	19990430	JP 1997-285754	19971017
	JP 3771694	B2	20060426		
	EP 909657	A2	19990421	EP 1998-119634	19981016
	EP 909657	A3	19990519		
	EP 909657	B1	20030618		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EP 1258369	A2	20021120	EP 2002-15513	19981016
	EP 1258369	A3	20021204		
	EP 1258369	B1	20050330		
	R: DE, GB				
	JP 11218914	A	19990810	JP 1998-322334	19981112

11/245136

JP 3949832	B2	20070725		
JP 2002196491	A	20020712	JP 2001-376180	19981112
JP 3949949	B2	20070725		
JP 2002251003	A	20020906	JP 2001-398410	19981112
JP 3949957	B2	20070725		
US 6340551	B1	20020122	US 1999-421535	19991020
US 2002081522	A1	20020627	US 2001-993634	20011127
JP 2004145370	A	20040520	JP 2004-45309	20040220
JP 2004145371	A	20040520	JP 2004-45310	20040220
JP 2004171029	A	20040617	JP 2004-45308	20040220
JP 2004157573	A	20040603	JP 2004-57884	20040302
JP 2004192011	A	20040708	JP 2004-57885	20040302
JP 2004192012	A	20040708	JP 2004-57886	20040302
PRAI JP 1997-285754	A	19971017		
JP 1997-313778	A	19971114		
EP 1998-119634	A3	19981016		
EP 2002-15513	A3	19981016		
US 1998-173719	A3	19981016		
JP 1998-322334	A3	19981112		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1437232	ICM	B41M005-36
	ICS	B41C001-10; G03F007-004
	IPCI	B41M0005-36 [I,C]; B41C0001-10 [I,C]; G03F0007-004 [I,C]; B41M0005-36 [I,A]; B41C0001-10 [I,A]; G03F0007-004 [I,A]
	IPCR	B41M0005-36 [I,C]; B41M0005-36 [I,A]; B41C0001-10 [I,C]; B41C0001-10 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]
JP 11119418	ECLA	B41C001/10A; B41M005/36S
	IPCI	G03F0007-004 [I,A]; G03F0007-039 [I,A]; B41N0001-14 [I,A]; B41N0001-12 [I,C*]
	IPCR	B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]
EP 909657	IPCI	B41M0005-36 [ICM,6]; B41C0001-10 [ICS,6]; G03F0007-004 [ICS,6]
	IPCR	B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36 [I,C*]; B41M0005-36 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]
EP 1258369	ECLA	B41C001/10A; B41M005/36S; G03F007/004D
	IPCI	B41M0005-36 [ICM,6]; B41C0001-10 [ICS,6]; G03F0007-004 [ICS,6]
JP 11218914	ECLA	B41C001/10A
	IPCI	G03F0007-095 [I,A]; B41N0001-14 [I,A]; B41N0001-12 [I,C*]; G03F0007-00 [I,A]; G03F0007-004 [I,A]
	IPCR	B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-032 [I,A]; G03F0007-032 [I,C*]
JP 2002196491	IPCI	G03F0007-095 [I,A]; B41N0001-14 [I,A]; B41N0001-12 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,A]
JP 2002251003	IPCI	G03F0007-00 [I,A]; G03F0007-004 [I,A]; G03F0007-095 [I,A]
US 6340551	IPCI	G03C0001-52 [ICM,7]
	IPCR	B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36 [I,C*]; B41M0005-36 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]
	NCL	430/192.000; 430/156.000; 430/270.100; 430/281.100; 430/905.000; 430/944.000
US 2002081522	ECLA	B41C001/10A; B41M005/36S; G03F007/004D
	IPCI	G03F0007-038 [ICM,7]

IPCR B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36 [I,C*]; B41M0005-36 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]
 NCL 430/270.100; 430/281.100; 430/302.000; 430/905.000; 430/944.000
 ECLA B41C001/10A; B41M005/36S; G03F007/004D
 JP 2004145370 IPCI G03F0007-38 [ICM,7]; G03F0007-095 [ICS,7]; G03F0007-00 [ICS,7]
 IPCR G03F0007-00 [N,A]; G03F0007-00 [N,C*]; G03F0007-095 [I,A]; G03F0007-095 [I,C*]; G03F0007-38 [I,A]; G03F0007-38 [I,C*]
 FTERM 2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB29; 2H025/CB41; 2H025/CB52; 2H025/CC20; 2H025/EA04; 2H025/EA10; 2H025/FA03; 2H025/FA17; 2H096/AA07; 2H096/BA16; 2H096/BA20; 2H096/CA12; 2H096/CA20; 2H096/EA04; 2H096/GA08; 2H096/JA02; 2H096/KA02
 JP 2004145371 IPCI G03F0007-004 [ICM,7]; G03F0007-00 [ICS,7]; G03F0007-095 [ICS,7]
 IPCR G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-095 [I,A]; G03F0007-095 [I,C*]
 FTERM 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB41; 2H025/CB52; 2H025/CC20; 2H025/DA13; 2H025/FA03; 2H025/FA17; 2H096/AA08; 2H096/BA16; 2H096/BA20; 2H096/CA20; 2H096/EA04; 2H096/GA08; 2H096/JA04
 JP 2004171029 IPCI G03F0007-033 [ICM,7]; B32B0027-42 [ICS,7]; G03F0007-00 [ICS,7]; G03F0007-032 [ICS,7]; G03F0007-11 [ICS,7]
 IPCR B32B0027-42 [I,A]; B32B0027-42 [I,C*]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-032 [I,A]; G03F0007-032 [I,C*]; G03F0007-033 [I,A]; G03F0007-033 [I,C*]; G03F0007-11 [I,A]; G03F0007-11 [I,C*]
 FTERM 2H025/AA01; 2H025/AA04; 2H025/AA06; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/BG00; 2H025/CB14; 2H025/CB29; 2H025/CB41; 2H025/CB45; 2H025/CC11; 2H025/FA17; 2H096/AA06; 2H096/BA09; 2H096/CA05; 2H096/EA04; 2H096/GA08; 4F100/AK02B; 4F100/AK03B; 4F100/AK12B; 4F100/AK21B; 4F100/AK24B; 4F100/AK25B; 4F100/AK26B; 4F100/AK27B; 4F100/AK34C; 4F100/AK62B; 4F100/AK66B; 4F100/AL01B; 4F100/AT00A; 4F100/BA03; 4F100/BA07; 4F100/BA10A; 4F100/BA10C; 4F100/EH46; 4F100/GB41; 4F100/JK01; 4F100/YY00B
 JP 2004157573 IPCI G03F0007-11 [ICM,7]; G03F0007-004 [ICS,7]; G03F0007-00 [ICS,7]
 IPCR G03F0007-00 [N,A]; G03F0007-00 [N,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-11 [I,A]; G03F0007-11 [I,C*]
 FTERM 2H025/AA01; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/CB29; 2H025/CB52; 2H025/CC20; 2H025/DA36; 2H025/FA03; 2H025/FA17; 2H096/AA08; 2H096/BA16; 2H096/BA20; 2H096/CA05; 2H096/EA04; 2H096/GA08
 JP 2004192011 IPCI G03F0007-00 [ICM,7]; G03F0007-004 [ICS,7]; G03F0007-095 [ICS,7]
 IPCR G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-095 [I,A]; G03F0007-095 [I,C*]
 FTERM 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/AD03; 2H025/CB28; 2H025/CB45; 2H025/CB52; 2H025/CC03; 2H025/CC20; 2H025/DA36; 2H025/EA04; 2H025/FA03; 2H025/FA17; 2H096/AA07; 2H096/AA08; 2H096/BA16; 2H096/BA20; 2H096/CA05; 2H096/CA12; 2H096/EA04;

2H096/GA08

JP 2004192012 IPCI G03F0007-004 [ICM,7]; G03F0007-032 [ICS,7]
 IPCR G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-032 [I,A]; G03F0007-032 [I,C*]
 FTERM 2H025/AA04; 2H025/AA12; 2H025/AB03; 2H025/AC08;
 2H025/AD03; 2H025/CB14; 2H025/CB29; 2H025/CB45;
 2H025/CC04; 2H025/CC11; 2H025/DA13; 2H025/FA10;
 2H025/FA17

AB The materials comprise: a substrate; a layer (A) containing $\geq 50\%$ a copolymer derived from ≥ 10 mol% monomers selected from: (a-1) compds. having a sulfonamide group wherein at least 1 H atom is linked to a N atom, (a-2) compds. having an active imino group of $-C(O)NHSO_2-$ and (a-3) compds. selected from acrylamide, methacrylamide, acrylate, methacrylate and hydroxystyrene, which resp. have a phenolic hydroxyl group; and a layer (B) containing $\geq 50\%$ an aqueous alkali solution-soluble resin having a phenolic hydroxyl group. The layer (A) and the layer (B) are laminated on the substrate in that order. At least the layer (B) contains a compound which generates heat upon absorbing light. An image forming material comprises following compound $R_1SO_2SO_2R_2$ or $R_1-SO_2-R_2$ wherein R_1 and R_2 may be the same or different, and R_1 and R_2 represent a substituted or non-substituted alkyl, alkenyl or aryl group. The materials and compns. have excellent stability of sensitivity with regard to concentration of a developing solution, i.e. have excellent development latitude and are useful for offset printing plate production. Thus, polymerizing N-(p-aminosulfonylphenyl)methacrylamide with Et methacrylate gave a copolymer which at 0.75 g was combined with a cyanine dye 0.04, p-toluenesulfonic acid 0.002, tetrahydrophthalic anhydride 0.05, a dye 0.015, Megafac F 177 (F-containing surfactant) 0.02, γ -butyrolactone 8, MEK 8 and 1-methoxy-2-propanol 7 g to give a solution (A). Coating the A on a cleaned, anodized and β -alanine-treated surface of an Al plate, drying, coating a solution containing m,p-cresol novolak 0.25, cyanine dye 0.05, n-dodecyl stearate 0.02, Megafac F 177 0.05, MEK 7 and 1-methoxy-2-propanol 7 g on top and drying gave a plate precursor patternable by IR laser radiation.

ST IR laser pos working photoresist sulfonamide resin; alk sol
 resin IR laser pos working photoresist; plating making pos
 working photoresist alkali sol resin

IT IR lasers
 Positive photoresists
 Printing plates
 (pos.-working photoresist materials and compns. workable with
 an IR laser and their use in plate making)

IT 7429-90-5, Aluminum, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (plate substrate; pos.-working photoresist materials and
 compns. workable with an IR laser and their use in plate making)

IT 203179-80-0P, Ethyl methacrylate-N-(p-hydroxyphenyl)methacrylamide
 copolymer 223561-59-9P, N-(p-Aminosulfonylphenyl)methacrylamide-ethyl
 methacrylate copolymer 223561-61-3P, Acrylonitrile-N-(p-
 aminosulfonylphenyl)acrylamide-methyl methacrylate copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
 (Properties); TEM (Technical or engineered material use); PREP
 (Preparation); USES (Uses)
 (pos.-working photoresist materials and compns. workable with
 an IR laser and their use in plate making)

IT 9016-83-5, Cresol-formaldehyde copolymer 28391-39-1, p-Vinylbenzoic acid
 polymer 51241-17-9, Triethyl(vinylbenzyl)ammonium chloride chloride
 polymer 504413-05-2, Acrylonitrile-methyl methacrylate-N-(p-
 toluenesulfonyl)methacrylamide copolymer
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
 engineered material use); USES (Uses)
 (pos.-working photoresist materials and compns. workable with

11/245136

an IR laser and their use in plate making)
IT 63-74-1, p-Aminobenzenesulfonamide 79-10-7, Acrylic acid, reactions
79-41-4, Methacrylic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(pos.-working photoresist materials and compns. workable with
an IR laser and their use in plate making)

L18 ANSWER 6 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:949924 CAPLUS

DN 140:21252

ED Entered STN: 05 Dec 2003

TI Conductive pattern formation using conductive polymer and
photosensitive resin

IN Hirai, Katsura

PA Konica Minolta Holdings Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H01B013-00

ICS G03F007-11; H05K001-09; H05K003-00; H05K003-06

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 38, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003346575	A	20031205	JP 2002-155388	20020529
PRAI	JP 2002-155388		20020529		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003346575	ICM	H01B013-00
	ICS	G03F007-11; H05K001-09; H05K003-00; H05K003-06
	IPCI	H01B0013-00 [ICM,7]; G03F0007-11 [ICS,7]; H05K0001-09 [ICS,7]; H05K0003-00 [ICS,7]; H05K0003-06 [ICS,7]
	IPCR	G03F0007-11 [I,A]; G03F0007-11 [I,C*]; H01B0013-00 [I,A]; H01B0013-00 [I,C*]; H05K0001-09 [I,A]; H05K0001-09 [I,C*]; H05K0003-00 [I,A]; H05K0003-00 [I,C*]; H05K0003-06 [I,A]; H05K0003-06 [I,C*]

AB The conductive pattern is manufactured by (1) forming an elec. conductive polymer layer (A) and photosensitive resin layer (B) successively on a support, (2) exposing the photosensitive layer, and (3) removing A together with B in the exposed or non-exposed area. High accurate elec. circuits and electrodes are easily manufactured

ST patterning conductive polymer photosensitive resin layer; elec circuit electrode conductive pattern formation

IT Conducting polymers

Electric circuits

Photoimaging materials

Photoresists

(conductive pattern formation using conductive polymer and photosensitive resin)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(novolak; conductive pattern formation using conductive polymer and photosensitive resin)

IT 93641-24-8

RL: TEM (Technical or engineered material use); USES (Uses)

(acid generator; conductive pattern formation using conductive polymer and photosensitive resin)

IT 155090-83-8, BAYTRON P

RL: DEV (Device component use); USES (Uses)

(conductive pattern formation using conductive polymer and photosensitive resin)

IT 104-15-4DP, p-Toluenesulfonic acid, reaction products with dimethoxycyclohexane and triethylene glycol 112-27-6DP, Triethylene glycol, reaction products with dimethoxycyclohexane and toluenesulfonic acid 933-40-4DP, 1,1-Dimethoxycyclohexane, reaction products with triethylene glycol and toluenesulfonic acid
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(conductive pattern formation using conductive polymer and photosensitive resin)

IT 35464-74-5, m-Cresol-p-cresol-formaldehyde-phenol copolymer 115815-82-2
 RL: TEM (Technical or engineered material use); USES (Uses)

(conductive pattern formation using conductive polymer and photosensitive resin)

IT 115111-30-3
 RL: TEM (Technical or engineered material use); USES (Uses)

(photosensitive resin binder; conductive pattern formation using conductive polymer and photosensitive resin)

L18 ANSWER 7 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:538184 CAPLUS

DN 137:116969

ED Entered STN: 19 Jul 2002

TI Positive image-forming material

IN Kunita, Kazuto; Sato, Kenichiro

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 115 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-039

ICS G03F007-023; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1223467	A2	20020717	EP 2002-237	20020114
	EP 1223467	A3	20030205		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002214785	A	20020731	JP 2001-5178	20010112
	JP 2002309057	A	20021023	JP 2001-115595	20010413
	CN 1365025	A	20020821	CN 2002-103198	20020112
	US 2003057610	A1	20030327	US 2002-43135	20020114
	US 6716565	B2	20040406		
PRAI	JP 2001-5178	A	20010112		
	JP 2001-115595	A	20010413		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1223467	ICM	G03F007-039
	ICS	G03F007-023; G03F007-004
	IPCI	G03F0007-039 [ICM,6]; G03F0007-023 [ICS,6]; G03F0007-004 [ICS,6]
	IPCR	B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36 [I,C*]; B41M0005-36 [I,A]; G03F0007-00 [N,C*]; G03F0007-00 [N,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-038 [N,C*]; G03F0007-038 [N,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

ECLA B41C001/10A; B41M005/36S; G03F007/021P; G03F007/023P; G03F007/039

JP 2002214785 IPCI G03F0007-033 [ICM,7]; C08F0020-00 [ICS,7]; G03F0007-00 [ICS,7]; G03F0007-039 [ICS,7]

IPCR G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0020-00 [I,C*]; C08F0020-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

JP 2002309057 IPCI C08L0033-04 [ICM,7]; C08L0033-00 [ICM,7,C*]; C08K0005-00 [ICS,7]; G03F0007-00 [ICS,7]; G03F0007-039 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]

IPCR G03F0007-039 [I,C*]; G03F0007-039 [I,A]; C08K0005-00 [I,C*]; C08K0005-00 [I,A]; C08L0033-00 [I,C*]; C08L0033-04 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

CN 1365025 IPCI G03F0007-004 [ICM,7]; G03F0070-39 [ICS,7]; G03F0070-38 [ICS,7]

IPCR B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36 [I,C*]; B41M0005-36 [I,A]; G03F0007-00 [N,C*]; G03F0007-00 [N,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-038 [N,C*]; G03F0007-038 [N,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

US 2003057610 IPCI G03F0007-039 [ICM,7]

IPCR B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36 [I,C*]; B41M0005-36 [I,A]; G03F0007-00 [N,C*]; G03F0007-00 [N,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-038 [N,C*]; G03F0007-038 [N,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

NCL 264/401.000; 430/001.000; 430/270.100; 430/285.100; 430/287.100; 430/302.000; 430/326.000; 430/944.000; 430/945.000; 526/245.000; 526/257.000; 526/258.000; 526/266.000; 526/274.000; 526/280.000; 526/285.000; 526/286.000; 526/292.100; 526/296.000; 526/297.000

ECLA B41C001/10A; B41M005/36S; G03F007/021P; G03F007/023P; G03F007/039

AB The present invention relates to a pos. image-forming material favorably usable as the so-called direct lithog. printing plate material capable of plate-making directly from digital signals in a computer with various kinds of lasers, or suitably usable as photoresist materials. The pos. image-forming material comprises a resin including a repeating unit corresponding to a specific monomer having an α -heteromethyl structure: RaRbX1C-C(=C)Q1 (Q1 = cyano (CN), COX2; X1,2 = hetero atom, halogen atom; Ra,b = H, halogen atom, cyano group, organic residual group).

ST lithog printing plate photoresist resin acid generator

IT Holography

Lithographic plates

Photoresists

(pos. image-forming material for)

IT 201024-57-9 384850-16-2

RL: TEM (Technical or engineered material use); USES (Uses)

(IR absorbing dye; pos. image-forming material for lithog printing plate containing)

IT 79723-43-6 125604-88-8 304882-18-6

RL: TEM (Technical or engineered material use); USES (Uses)

(acid generator; pos. image-forming material for lithog printing plate containing)

IT 52411-04-8 68900-98-1 84563-49-5 101491-20-7 120504-13-4 127326-57-2 134127-48-3 442900-31-4 442900-32-5

RL: TEM (Technical or engineered material use); USES (Uses)

(dissoln. inhibitor; pos. image-forming material for lithog printing plate containing)

11/245136

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 409332-98-5
409332-99-6 409333-02-4 442899-98-1 442899-99-2 442900-01-8
442900-02-9 442900-04-1 442900-05-2 442900-06-3 442900-07-4
442900-09-6 442900-11-0 442900-12-1 442900-13-2 442900-15-4
442900-17-6 442900-18-7 442900-19-8 442900-20-1
442900-22-3 442900-24-5 442900-26-7 442900-28-9
442900-30-3

RL: TEM (Technical or engineered material use); USES (Uses)
(resin; pos. image-forming material for lithog printing plate containing)

L18 ANSWER 8 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:429450 CAPLUS

DN 137:13269

ED Entered STN: 07 Jun 2002

TI Photosensitive composition for lithog. printing plate

IN Fujita, Kazuo; Tan, Shiro

PA Fuji Photo Film Co., Ltd., Japan

SO U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM G03F007-023

ICS G03F007-30

INCL 430192000

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 35, 38

FAN.CNT 2

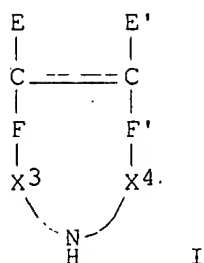
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002068235	A1	20020606	US 2001-970988	20011005
	US 6660445	B2	20031209		
	JP 2002122989	A	20020426	JP 2000-312929	20001013
	CN 1355448	A	20020626	CN 2000-133306	20001123
	JP 2002268219	A	20020918	JP 2001-69062	20010312
	CN 1349132	A	20020515	CN 2001-139305	20011013
PRAI	JP 2000-312929	A	20001013		
	JP 2001-69062	A	20010312		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002068235	ICM	G03F007-023
	ICS	G03F007-30
	INCL	430192000
	IPCI	G03F0070-23; G03F0007-30
	IPCR	G03F0007-023 [I,C*]; G03F0007-023 [I,A]
	NCL	430/192.000; 430/166.000; 430/191.000; 430/193.000; 430/302.000
	ECLA	G03F007/023P
JP 2002122989	IPCI	G03F0007-033 [ICM,7]; C08F0220-28 [ICS,7]; C08F0220-30 [ICS,7]; C08F0220-38 [ICS,7]; C08F0220-58 [ICS,7]; C08F0220-60 [ICS,7]; C08F0220-00 [ICS,7,C*]; C08F0290-06 [ICS,7]; C08F0290-00 [ICS,7,C*]; C08K0005-28 [ICS,7]; C08K0005-00 [ICS,7,C*]; C08L0033-14 [ICS,7]; C08L0033-24 [ICS,7]; C08L0033-00 [ICS,7,C*]; C08L0055-00 [ICS,7]; G03F0007-00 [ICS,7]; G03F0007-022 [ICS,7]
	IPCR	G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0220-00 [I,C*]; C08F0220-28 [I,A]; C08F0220-30 [I,A]; C08F0220-38 [I,A]; C08F0220-58 [I,A]; C08F0220-60 [I,A]; C08F0290-00 [I,C*]; C08F0290-06 [I,A]; C08K0005-00 [I,C*]; C08K0005-28 [I,A]; C08L0033-00 [I,C*]; C08L0033-14 [I,A]; C08L0033-24 [I,A];

C08L0055-00 [I,C*]; C08L0055-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-022 [I,C*]; G03F0007-022 [I,A]
 CN 1355448 IPCI G03F0007-008 [ICM,7]
 IPCR G03F0007-008 [I,C*]; G03F0007-008 [I,A]
 JP 2002268219 IPCI G03F0007-033 [ICM,7]; C08F0212-14 [ICS,7]; C08F0212-00 [ICS,7,C*]; C08F0220-28 [ICS,7]; C08F0220-58 [ICS,7]; C08F0220-00 [ICS,7,C*]; C08F0222-40 [ICS,7]; C08F0222-00 [ICS,7,C*]; C08K0005-28 [ICS,7]; C08K0005-00 [ICS,7,C*]; C08L0101-12 [ICS,7]; C08L0101-00 [ICS,7,C*]; G03F0007-022 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]
 IPCR G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0212-00 [I,C*]; C08F0212-14 [I,A]; C08F0220-00 [I,C*]; C08F0220-28 [I,A]; C08F0220-58 [I,A]; C08F0222-00 [I,C*]; C08F0222-40 [I,A]; C08K0005-00 [I,C*]; C08K0005-28 [I,A]; C08L0101-00 [I,C*]; C08L0101-12 [I,A]; G03F0007-022 [I,C*]; G03F0007-022 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
 CN 1349132 IPCI G03F0007-008; G03F0070-27
 IPCR G03F0007-023 [I,C*]; G03F0007-023 [I,A]

GI



AB The present invention relates to a photosensitive compound comprising a vinyl polymer compound which is insol. in water and soluble in an aqueous alkaline solution and o-naphthoquinonediazide compound. The invention vinyl

polymer compound is a copolymer comprising at least one monomer unit derived from monomer compound (A): a compound having an alkaline-soluble group represented by

general formula $\text{CH}_2=\text{CR}_1\text{COXR}_2(\text{Y})_n(\text{Z})_m$ ($\text{X} = \text{O}, \text{NR}_3$; $\text{R}_3 = \text{H}, \text{C1-12 alkyl}, \text{cycloalkyl}, \text{aryl}, \text{aralkyl}$; $\text{R}_1 = \text{H}, \text{CH}_3$; $\text{R}_2 = \text{single bond}, \text{bivalent organic group}$; $\text{Z} = \text{OH}, \text{COOH}, \text{etc.}$), $\text{CH}_2=\text{CABX}_1\text{NHX}_2$ ($\text{A} = \text{H}, \text{halogen}, \text{alkyl}$; $\text{B} = \text{single bond}, \text{alkylene}, \text{phenylene}$; $\text{X}_1 = \text{C=O}, \text{OC=O}, \text{O=S=O}$; $\text{X}_2 = \text{RC=O}, \text{COOR}, \text{R(O=S=O)}, \text{C.tplbond.N}, \text{NO}_2$; $\text{R}' = \text{alkyl}, \text{cycloalkyl}, \text{Ph}, \text{naphthyl group}$) or I ($\text{E}, \text{E}' = \text{H}, \text{halogen}, \text{alkyl}, \text{Ph group}$; $\text{F}, \text{F}' = \text{single bond}, \text{alkylene}$; $\text{X}_{3,4} = \text{C=O}, \text{OC=O}, \text{O=S=O}$), and at least one monomer unit derived from monomer compound (B): (meth)acrylate having poly(oxyalkylene) chain. A lithog. printing plate prepared from a presensitized plate having a photosensitive layer of the invention photosensitive compound shows improvement of abrasion resistance, printing durability, chemical resistance, development latitude, and contamination property.

ST photoresist lithog printing plate

IT Lithographic plates

(photosensitive composition for)

IT Photoresists

(photosensitive composition for lithog. printing plate containing)

IT 410100-15-1P 410100-17-3P 410100-19-5P 410100-21-9P
 410100-23-1P 410100-25-3P 410100-28-6P 410100-30-0P
 410100-32-2P 410100-44-6P 411208-15-6P 411208-16-7P

11/245136

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photosensitive composition for lithog. printing plate containing)

L18 ANSWER 9 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:98645 CAPLUS
DN 134:155235
ED Entered STN: 09 Feb 2001
TI Materials for recording of images with infrared laser beam
IN Kunita, Kazuhito
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-00
ICS B41N001-14; G03F007-004; G03F007-038; G03F007-11
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001033948	A	20010209	JP 1999-209404	19990723
PRAI	JP 1999-209404		19990723		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001033948	ICM	G03F007-00
	ICS	B41N001-14; G03F007-004; G03F007-038; G03F007-11
	IPCI	G03F0007-00 [ICM,7]; B41N0001-14 [ICS,7]; G03F0007-004 [ICS,7]; G03F0007-038 [ICS,7]; G03F0007-11 [ICS,7]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-11 [I,C*]; G03F0007-11 [I,A]

AB The material comprises (a) a support, (b) a layer containing ink-repelling binders and hydrophobic particles, which forms a hydrophobic surface by melt adhesion of the binders and/or the particles, and (c) an acid-crosslinking layer containing photo- or heat-acid generators and a compound which crosslinks in presence of an acid and decreases its alkaline solubility by crosslinking, formed in the order. Either or both of

the layers may contain IR absorbents. The materials are suitable as photoresists, direct-writing lithog. plates, etc.

ST IR laser direct writing lithog plate; printing plate lithog direct writing; photosensitive polymer IR laser image formation; heat sensitive polymer IR image formation

IT Carbon black, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(IR absorbent; IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

IT Optical materials

(IR absorbers; IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

IT Lithographic plates

Photoimaging materials

(IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

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IT IR materials
(absorbers; IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

IT Phenolic resins, reactions
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(resol, crosslinking agent; IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

IT Recording materials
(thermal; IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

IT 16595-48-5 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(IR absorbent; IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

IT 9002-89-5, MOWIOL 56-98 9003-39-8, K30 24979-70-2, Poly(p-hydroxystyrene) 27029-76-1 146324-59-6 223659-46-9
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

IT 125604-88-8 220476-51-7
RL: TEM (Technical or engineered material use); USES (Uses)
(acid-generator; IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

IT 2937-61-3 151968-98-8 185502-14-1
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(crosslinking agent; IR-writable materials comprising of heat-fusible hydrophobic layers and acid-crosslinking layers)

L18 ANSWER 10 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:77983 CAPLUS

DN 134:139240

ED Entered STN: 02 Feb 2001

TI Heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof

IN Kunita, Kazuto

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 47 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM B41M005-36

ICS B41C001-10

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1072432	A2	20010131	EP 2000-113120	20000628
	EP 1072432	A3	20030305		
	EP 1072432	B1	20050126		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001042541	A	20010216	JP 1999-212453	19990727
	AT 287798	T	20050215	AT 2000-113120	20000628
	US 6670098	B1	20031230	US 2000-614114	20000711
PRAI	JP 1999-212453	A	19990727		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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EP 1072432	ICM	B41M005-36

ICS B41C001-10
 IPCI B41M0005-36 [ICM, 6]; B41C0001-10 [ICS, 6]
 IPCR G03F0007-11 [I, C*]; G03F0007-11 [I, A]; B41C0001-10 [I, C*]; B41C0001-10 [I, A]; B41M0005-26 [I, C*]; B41M0005-26 [I, A]; B41M0005-36 [I, C*]; B41M0005-36 [I, A]; B41N0001-12 [I, C*]; B41N0001-14 [I, A]; G03F0007-004 [I, C*]; G03F0007-004 [I, A]; G03F0007-038 [I, C*]; G03F0007-038 [I, A]; G03F0007-095 [I, C*]; G03F0007-095 [I, A]
 ECLA B41C001/10A; B41M005/36S
 JP 2001042541 IPCI G03F0007-11 [ICM, 7]; B41M0005-26 [ICS, 7]; B41N0001-14 [ICS, 7]; B41N0001-12 [ICS, 7, C*]; G03F0007-004 [ICS, 7]; G03F0007-038 [ICS, 7]; G03F0007-095 [ICS, 7]
 IPCR G03F0007-11 [I, C*]; G03F0007-11 [I, A]; B41C0001-10 [I, C*]; B41C0001-10 [I, A]; B41M0005-26 [I, C*]; B41M0005-26 [I, A]; B41M0005-36 [I, C*]; B41M0005-36 [I, A]; B41N0001-12 [I, C*]; B41N0001-14 [I, A]; G03F0007-004 [I, C*]; G03F0007-004 [I, A]; G03F0007-038 [I, C*]; G03F0007-038 [I, A]; G03F0007-095 [I, C*]; G03F0007-095 [I, A]
 AT 287798 IPCI B41M0005-36 [ICM, 7]; B41C0001-10 [ICS, 7]
 US 6670098 IPCI G03F0007-095 [ICM, 7]
 IPCR G03F0007-11 [I, C*]; G03F0007-11 [I, A]; B41C0001-10 [I, C*]; B41C0001-10 [I, A]; B41M0005-26 [I, C*]; B41M0005-26 [I, A]; B41M0005-36 [I, C*]; B41M0005-36 [I, A]; B41N0001-12 [I, C*]; B41N0001-14 [I, A]; G03F0007-004 [I, C*]; G03F0007-004 [I, A]; G03F0007-038 [I, C*]; G03F0007-038 [I, A]; G03F0007-095 [I, C*]; G03F0007-095 [I, A]
 NCL 430/273.100; 430/156.000; 430/271.100; 430/944.000
 ECLA B41C001/10A; B41M005/36S
 AB The materials have a support having thereon a recording layer which is formed of a composition whose solubility in water or in an alkali aqueous solution is altered by the effects of light or heat, and an intermediate layer which is disposed between the support and the recording layer and which has the same function as that of the recording layer and whose sensitivity to light or heat is higher than that of the recording layer. Thus, under coating a 10 g/m² layer of β -alanine on the surface of a degreased, etched and anodically oxidized Al plate, coating on top with a solution containing resol resin (Mw 5000) 0.8, m-cresol-formaldehyde-p-octylphenol novolak 1.5, acid generating naphthalene-1-sulfonium salt (I) 0.20, an IR absorbent compound 0.30, Megafac F 177 (F-containing surfactant) 0.06, MEK 10.0, γ -butyrolactone 10.0 and 1-methoxy-2-propanol 7.0 g to dry pickup weight 0.5 g/m², drying, covering on very top with a solution containing resol resin (Mw 3000) 0.8, formaldehyde-phenol novolak 1.5, I 0.20, an IR absorbent 0.15, a coloring agent 0.015, Megafac F 177 0.06, EtOAc 15.0 and MeOH 5.0 g to total coating pickup weight 2.0 g/m² gave a neg. recording plate with good coated layer adhesion, storage stability and photo-sensitivity.
 ST computer aided plate formation photo sensitive coating; printing plate formation photo sensitive coating
 IT Optical materials
 (IR absorbers; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT IR materials
 (absorbers; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
 IT Photoresists

Printing plates

(heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)

- IT Phenolic resins, properties
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (novolak, novolak; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
- IT Phenolic resins, properties
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (novolak; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
- IT Phenolic resins, properties
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (resol, coatings; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
- IT 115840-01-2 201024-57-9 322406-70-2 322406-77-9 322406-78-0
 RL: MOA (Modifier or additive use); USES (Uses)
 (IR absorbents; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
- IT 85-47-2D, 1-Naphthalenesulfonic acid, derivative 322406-74-6
 RL: CAT (Catalyst use); USES (Uses)
 (acid generating agents; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
- IT 85-42-7, Hexahydrophthalic anhydride 104-15-4, -p-Toluenesulfonic acid, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (additive; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
- IT 2628-17-3D, p-Hydroxystyrene, polymers 24979-71-3, p-Hydroxystyrene-methyl methacrylate copolymer 25053-98-9, m-Cresol-formaldehyde-3,5-xylene copolymer 25086-36-6, m-Cresol-formaldehyde copolymer 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 56592-54-2 62814-37-3 200628-49-5, 2-(p-Hydroxyphenyl)ethyl methacrylate homopolymer 322406-71-3, N-(p-Hydroxyphenyl)methacrylamide-2-(p-Hydroxyphenyl)ethyl methacrylate copolymer 322406-75-7, o-Cresol-N-(3-hydroxyphenyl)acetamide copolymer
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (binder resin; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
- IT 2937-61-3, 2,4,6-Trimethylolphenol 51877-25-9 259527-87-2 322406-72-4 322406-73-5
 RL: MOA (Modifier or additive use); USES (Uses)
 (crosslinkers; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)
- IT 9003-35-4, Formaldehyde-phenol copolymer 87622-05-7, m-Cresol-formaldehyde-p-tert-octylphenol copolymer
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (novolak; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)

11/245136

forming thereof)
IT 7429-90-5, Aluminum, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(printing plate; heat- and photo-sensitive image forming materials useful for computer-aided printing plate making process and method for forming thereof)

L18 ANSWER 11 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:646050 CAPLUS

DN 133:238504

ED Entered STN: 15 Sep 2000

TI Hydroxy-epoxide thermally cured undercoat for 193 nm lithography

IN Foster, Patrick; Slater, Sidney George; Steinhausler, Thomas; Blakeney, Andrew J.; Biafore, John Joseph

PA Arch Specialty Chemicals, Inc., USA

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08F008-00

ICS G03F007-11; G03F007-30

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000053645	A1	20000914	WO 2000-US6315	20000310
	W: JP, KR, SG				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6492092	B1	20021210	US 1999-268429	19990312
	EP 1169357	A1	20020109	EP 2000-917843	20000310
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1999-268429	A	19990312		
	WO 2000-US6315	W	20000310		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000053645	ICM	C08F008-00
	ICS	G03F007-11; G03F007-30
	IPCI	C08F0008-00 [ICM,7]; G03F0007-11 [ICS,7]; G03F0007-30 [ICS,7]
	IPCR	G03F0007-039 [I,C*]; G03F0007-039 [I,A]; C08F0008-00 [I,C*]; C08F0008-00 [I,A]; C08G0059-00 [I,C*]; C08G0059-62 [I,A]; C08G0059-68 [I,A]; C08L0063-00 [N,C*]; C08L0063-00 [N,A]; C09D0133-06 [I,C*]; C09D0133-06 [I,A]; C09D0163-00 [I,C*]; C09D0163-00 [I,A]; G03F0007-004 [N,C*]; G03F0007-004 [N,A]; G03F0007-075 [I,C*]; G03F0007-075 [I,A]; G03F0007-09 [I,C*]; G03F0007-09 [I,A]; G03F0007-11 [I,C*]; G03F0007-11 [I,A]; G03F0007-40 [I,C*]; G03F0007-40 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
	ECLA	C08F008/00+12/24; C08F008/00+16/08; C08F008/00+20/00; C09D133/06B4+B4; C09D163/00+B2; G03F007/075M2; G03F007/09A
US 6492092	IPCI	G03F0007-11 [ICM,7]; G03F0007-26 [ICS,7]
	IPCR	G03F0007-039 [I,C*]; G03F0007-039 [I,A]; C08F0008-00 [I,C*]; C08F0008-00 [I,A]; C08G0059-00 [I,C*]; C08G0059-62 [I,A]; C08G0059-68 [I,A]; C08L0063-00 [N,C*]; C08L0063-00 [N,A]; C09D0133-06 [I,C*]; C09D0133-06 [I,A]; C09D0163-00 [I,C*]; C09D0163-00

[I,A]; G03F0007-004 [N,C*]; G03F0007-004 [N,A];
G03F0007-075 [I,C*]; G03F0007-075 [I,A]; G03F0007-09
[I,C*]; G03F0007-09 [I,A]; G03F0007-11 [I,C*];
G03F0007-11 [I,A]; G03F0007-40 [I,C*]; G03F0007-40
[I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
NCL 430/271.100; 430/325.000; 430/326.000; 525/118.000
ECLA C08F0008/00+12/24; C08F0008/00+16/08; C08F0008/00+20/00;
C09D133/06B4+B4; C09D163/00+B2; G03F0007/075M2;
G03F0007/09A
EP 1169357 IPCI C08F0008-00 [ICM,6]; G03F0007-11 [ICS,6]; G03F0007-30
[ICS,6]
IPCR G03F0007-039 [I,C*]; G03F0007-039 [I,A]; C08F0008-00
[I,C*]; C08F0008-00 [I,A]; C08G0059-00 [I,C*];
C08G0059-62 [I,A]; C08G0059-68 [I,A]; C08L0063-00
[N,C*]; C08L0063-00 [N,A]; C09D0133-06 [I,C*];
C09D0133-06 [I,A]; C09D0163-00 [I,C*]; C09D0163-00
[I,A]; G03F0007-004 [N,C*]; G03F0007-004 [N,A];
G03F0007-075 [I,C*]; G03F0007-075 [I,A]; G03F0007-09
[I,C*]; G03F0007-09 [I,A]; G03F0007-11 [I,C*];
G03F0007-11 [I,A]; G03F0007-40 [I,C*]; G03F0007-40
[I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
OS MARPAT 133:238504
AB The present invention is directed to a thermally curable polymer composition
comprising a hydroxyl-containing polymer and a polyfunctional epoxide as a
crosslinking agent. The thermally curable polymer composition may be dissolved
in a solvent and used as an undercoat layer in deep UV lithog. In addition,
the present invention also relates to a photolithog. coated
substrate comprising: a substrate, the thermally cured undercoat composition on
the substrate, and a radiation-sensitive resist topcoat on the thermally
cured undercoat composition. Furthermore, the present invention further relates
to a process for using the photolithog. coated substrate for the
production of relief structures.
ST hydroxy polymer epoxide thermal crosslinking resist photolithog
IT Photoresists
(Bilayer; hydroxy-epoxide thermally cured undercoat for 193 nm lithog.)
IT Photolithography
(hydroxy-epoxide thermally cured undercoat for 193 nm lithog.)
IT 293299-00-0P, N-(p-Hydroxyphenyl)methacrylamide-isobornyl
methacrylate copolymer 293299-01-1P 293299-02-2P
293299-03-3P 293299-04-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(hydroxy-epoxide thermally cured undercoat for 193 nm lithog.)
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bergman; US 3245954 A 1966
(2) Irving; US 4593052 A 1986 CAPLUS
(3) Kunz; US 5597868 A 1997 CAPLUS
(4) Thackeray; US 5851730 A 1998 CAPLUS
(5) Tominaga; US 5218018 A 1993 CAPLUS
L18 ANSWER 12 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:144538 CAPLUS
DN 132:201059
ED Entered STN: 03 Mar 2000
TI Photosensitive resin composition for planographic printing plate
preparation
IN Kunita, Kazuto
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 82 pp.
CODEN: EPXXDW
DT Patent
LA English

11/245136

IC ICM B41C001-10

ICS B41M005-36; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 982123	A2	20000301	EP 1999-114229	19990727
	EP 982123	A3	20000809		
	EP 982123	B1	20040721		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2000062338	A	20000229	JP 1998-237752	19980824
	JP 3660505	B2	20050615		
	JP 2000075485	A	20000314	JP 1998-243478	19980828
	JP 3836605	B2	20061025		
	EP 1354701	A1	20031022	EP 2003-12286	19990727
	EP 1354701	B1	20060301		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	JP 2006126869	A	20060518	JP 2006-12491	20060120
PRAI	JP 1998-237752	A	19980824		
	JP 1998-243478	A	19980828		
	EP 1999-114229	A3	19990727		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 982123	ICM	B41C001-10
	ICS	B41M005-36; G03F007-004
	IPCI	B41C0001-10 [ICM,6]; B41M0005-36 [ICS,6]; G03F0007-004 [ICS,6]
	IPCR	B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36 [I,C*]; B41M0005-36 [I,A]; B41N0001-00 [I,C*]; B41N0001-08 [I,A]
	ECLA	B41C001/10A; B41M005/36S; B41N001/08
JP 2000062338	IPCI	B41N0001-14 [ICM,7]; B41N0001-12 [ICM,7,C*]; G03F0007-00 [ICS,7]; G03F0007-004 [ICS,7]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]
JP 2000075485	IPCI	G03F0007-00 [I,A]; B41C0001-055 [I,A]; G03F0007-039 [I,A]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; B41C0001-055 [I,C*]; B41C0001-055 [I,A]; G03F0003-10 [I,C*]; G03F0003-10 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-032 [I,C*]; G03F0007-037 [I,A]
EP 1354701	IPCI	B41C0001-10 [I,C]; B41M0005-36 [I,C]; G03F0007-004 [I,C]; B41C0001-10 [I,A]; B41M0005-36 [I,A]; G03F0007-004 [I,A]
	IPCR	B41C0001-10 [I,C*]; B41C0001-10 [I,A]
	ECLA	B41C001/10A
JP 2006126869	IPCI	G03F0007-038 [I,A]; G03F0007-004 [I,A]; G03F0007-00 [I,A]; C08F0020-60 [I,A]; C08F0020-10 [I,A]; C08F0020-00 [I,C*]; C08F0012-14 [I,A]; C08F0012-00 [I,C*]; C08G0008-28 [I,A]; C08G0008-00 [I,C*]
	FTERM	2H025/AA01; 2H025/AA11; 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/BE00; 2H025/CB14; 2H025/CB15; 2H025/CB17; 2H025/CB41; 2H025/CB45; 2H025/CC11; 2H025/CC20; 2H025/FA10; 2H025/FA17; 2H096/AA06; 2H096/BA06; 2H096/CA03; 2H096/EA04; 2H096/EA23; 2H096/GA08; 2H096/HA01; 4J033/CA02; 4J033/CA11; 4J033/CA44; 4J033/HA12; 4J033/HA28; 4J033/HB10;

4J100/AB07P; 4J100/AL08P; 4J100/AM21P; 4J100/BA04P;
 4J100/BA12P; 4J100/BA34P; 4J100/BA37P; 4J100/BA41P;
 4J100/BA54P; 4J100/BA55P; 4J100/BB01P; 4J100/BC43P;
 4J100/BC49P; 4J100/CA01; 4J100/CA03; 4J100/JA38

GI For diagram(s), see printed CA Issue.

AB Disclosed is a photosensitive resin composition suited for planog. printing plate preparation comprising a phenolic polymer having on a polymer backbone at least a structural unit represented by the formula I (A = an aromatic hydrocarbon ring which may have a substituent group; R1, R2 = H or a hydrocarbon group having ≤ 12 C atoms; n = an integer of 1-3; r = an integer chosen in accordance with the mol. weight; X = a divalent linking group; Y = a divalent to quadrivalent linking group having at least one partial structure selected from CO, SO2, PO, C=N, CS, NC=N, NCO, NSO2, NPO, NCS, CO2, SO3, CN, CO2H, and N+ or a terminal group terminated with H; Z = a monovalent to quadrivalent linking group with the proviso that Z is absent when Y is a terminal group or Z is a terminal group when Y is a linking group) and a mol. weight of ≥ 1000 and an IR ray-absorbing agent.

ST photosensitive resin compn phenolic polymer planog printing plate

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (IR-laser photosensitive resin compns. for planog. printing plate preparation containing phenolic polymers and)

IT Printing (impact)

(IR-laser-sensitive resin compns. containing phenolic polymers for color proofing in)

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (IR-laser-sensitive resin compns. for planog. printing plate preparation containing)

IT Photoimaging materials

(IR-laser-sensitive; containing)

IT Photoresists

(IR-laser-sensitive; containing phenolic polymers)

IT Optical filters

(color; IR-laser-sensitive resin compns. containing phenolic polymers for preparation of)

IT Phenolic resins, preparation

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (reaction products with phenylisocyanate or butylisocyanate or benzylisocyanate; preparation and use in IR-laser photosensitive resin compns. for planog. printing plate preparation)

IT 259527-67-8

RL: TEM (Technical or engineered material use); USES (Uses)
 (9003354IR-laser photosensitive resin compns. for planog. printing plate preparation containing)

IT 259527-65-6 259527-68-9 259527-69-0 259527-71-4 259527-72-5
 259527-74-7 259527-76-9 259527-78-1 259527-79-2 259527-80-5
 259527-81-6 259527-82-7 259527-83-8 259527-85-0 259527-86-1

RL: TEM (Technical or engineered material use); USES (Uses)
 (IR-laser photosensitive resin compns. for planog. printing plate preparation containing)

IT 2937-61-3 9003-35-4 24979-70-2 27029-76-1 69415-30-1 215253-67-1

RL: TEM (Technical or engineered material use); USES (Uses)
 (IR-laser photosensitive resin compns. for planog. printing plate preparation containing phenolic polymers and)

IT 51906-85-5P 259527-66-7P 259527-84-9P 259527-87-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reaction in preparing phenolic polymers for photosensitive resin compns. for planog. printing plate preparation)

11/245136

IT 103-71-9DP, reaction products with phenolic resins or phenol compds.
111-36-4DP, reaction products with phenolic resins 3173-56-6DP, reaction
products with phenolic resins 4083-64-1DP, reaction products with
phenolic resins 9003-35-4DP, reaction products with phenylisocyanate or
butylisocyanate or benzylisocyanate 24979-70-2DP, reaction products with
tosylisocyanate 25086-36-6DP, reaction products with tosylisocyanate
57167-08-5DP, reaction products with tosylisocyanate
200628-49-5DP, reaction products with tosylisocyanate
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(preparation and use in IR-laser photosensitive resin compns. for
planog. printing plate preparation)
IT 51-67-2 79-30-1 123-30-8 638-29-9, Pentanoyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction in preparing phenolic polymers for photosensitive
resin compns. for planog. printing plate preparation)

L18 ANSWER 13 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:505252 CAPLUS

DN 129:182120

ED Entered STN: 14 Aug 1998

TI Positive-working photosensitive composition providing high
contrast image

IN Kawamura, Koichi; Watanabe, Noriaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-00; G03F007-022; G03F007-039; H01L021-027

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 38

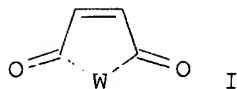
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10207052	A	19980807	JP 1997-12828	19970127
	JP 3851398	B2	20061129		
PRAI	JP 1997-12828		19970127		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 10207052	ICM	G03F007-004
	ICS	G03F007-00; G03F007-022; G03F007-039; H01L021-027
	IPCI	G03F0007-004 [I,A]; G03F0007-023 [I,A]; G03F0007-00 [I,A]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

GI



AB The title composition contains a polymer comprising structural components (a) a

fluoroaliph. group-containing addition-polymerizable monomer, (b) a monomer selected from CH₂:CA[COWR1SO₂NHR₂], CH₂:CA[COWR1NH₂SO₂R₄], CH₂:CA[CONR₃XmY(OH)n], and CH₂:CA[ZXmY(OH)n] (A = H, halo, alkyl; W = O, NR₃; R₁ = (substituted) alkylene or arylene; R₂, R₃ = H, alkyl, aryl; Y, Z = arylene; R₄ = alkyl, aryl; X = divalent organic group composed of atoms selected from C, N, O, S, halo, and H; m = 0 or 1; n = 1-3), and (c) a monomer selected from CH₂:CA[COWR₅], CH₂:CA[OCOR₆], CH₂:CAU, and I [A and W are each the same as defined above; R₅ = (substituted) alkyl, (substituted) aryl; R₆ = alkyl or aryl; U = cyano, aryl, alkoxy, aryloxy, acyloxymethyl, N-containing heterocycle; CH₂OCOR₆] as copolymer components, in which the total weight of the components a, b, and c is >90% of the total components. The composition shows high photosensitivity, safety under white light, and development latitude and provide high contrast images.

ST photosensitive resin compn fluoropolymer; presensitized lithog plate fluoropolymer
 IT Fluoropolymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photosensitive composition containing fluoropolymers)
 IT Lithographic plates
 (presensitized; photoresist composition containing fluoropolymers)
 IT 236754-89-5P
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photosensitive composition containing fluoropolymers)
 IT 211634-81-0 211634-82-1 211634-83-2, 2-Ethylhexyl methacrylate-2-(perfluorooctyl)ethyl acrylate-poly(oxyethylene) acrylate-N-(4-sulfamoylphenyl)methacrylamide copolymer 211634-84-3 211634-86-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photosensitive composition containing fluoropolymers)

L18 ANSWER 14 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:351622 CAPLUS
 DN 129:74068
 ED Entered STN: 10 Jun 1998
 TI Photolithographic printing plates of excellent fine line reproduction, developability, printing durability, and soiling resistance
 IN Oota, Katsuko; Nakamura, Kenichi
 PA Mitsubishi Chemical Industries Ltd., Japan; Konica Co.
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 IC ICM G03F007-09
 ICS B41N001-08; B41N003-03; C25D011-04; C25F003-04; G03F007-00; G03F007-004; G03F007-021
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

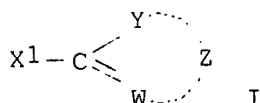
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10148943	A	19980602	JP 1996-324603	19961120
PRAI	JP 1996-324603		19961120		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 10148943	ICM	G03F007-09
	ICS	B41N001-08; B41N003-03; C25D011-04; C25F003-04; G03F007-00; G03F007-004; G03F007-021
	IPCI	G03F0007-09 [ICM,6]; B41N0001-08 [ICS,6]; B41N0003-03 [ICS,6]; C25D0011-04 [ICS,6]; C25F0003-04 [ICS,6]; G03F0007-00 [ICS,6]; G03F0007-004 [ICS,6]; G03F0007-021

[ICS,6]
 IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; B41N0001-00
 [I,C*]; B41N0001-08 [I,A]; B41N0003-03 [I,C*];
 B41N0003-03 [I,A]; C25D0011-04 [I,C*]; C25D0011-04
 [I,A]; C25F0003-00 [I,C*]; C25F0003-04 [I,A];
 G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016
 [I,C*]; G03F0007-021 [I,A]; G03F0007-09 [I,C*];
 G03F0007-09 [I,A]

GI



AB The title plates using an electrochem. etched Al plate support have a photosensitive layer containing (A) a diazo resin by co-condensation of aromatic diazo compound and carboxy and/or hydroxy group-containing atom. compound and having an organic acid anion as the counter ion, (B) compound dissociating an acid or free group upon irradiation of active light beam, such as I, and (C) organic dye or precursor changing color by an acid, wherein X1 = Cl-3 trihaloalkyl, trihaloalkenyl; W = N, =CR1-; Y = O, S, Se, N, NR2; R1, R2 = H, (halo)alkyl, (hydroxy)alkyl; Z = group of non-metal atoms imparting aromatic nature to the compound I.

ST photolithog printing plate photoresist
 IT Etching
 Lithographic plates
 Photoresists
 (photolithog. printing plates of excellent fine line reproduction, developability, printing durability, and soiling resistance)

IT 7429-90-5, Aluminum, uses
 RL: DEV (Device component use); USES (Uses)
 (photolithog. printing plates of excellent fine line reproduction, developability, printing durability, and soiling resistance)

IT 77833-95-5P, Acrylonitrile-ethyl acrylate-4-hydroxyphenylmethacrylamide-methacrylic acid copolymer 209053-67-8P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photolithog. printing plates of excellent fine line reproduction, developability, printing durability, and soiling resistance)

IT 2390-60-5, Victoria Pure Blue BOH 9003-01-4, Jurymer AC-10L
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photolithog. printing plates of excellent fine line reproduction, developability, printing durability, and soiling resistance)

L18 ANSWER 15 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1998:184464 CAPLUS
 DN 128:277110
 ED Entered STN: 28 Mar 1998
 TI Photosensitive composition, presensitized lithographic plate, and development thereof
 IN Kizu, Noriyuki; Matsubara, Shinichi
 PA Konica Co., Japan; Mitsubishi Chemical Industries Ltd.
 SO Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-021

ICS G03F007-00; G03F007-004; G03F007-027; G03F007-028; G03F007-033;
G03F007-30

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10078654	A	19980324	JP 1996-248536	19960902
PRAI	JP 1996-248536		19960902		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 10078654	ICM	G03F007-021
	ICS	G03F007-00; G03F007-004; G03F007-027; G03F007-028; G03F007-033; G03F007-30
	IPCI	G03F0007-021 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-004 [ICS,6]; G03F0007-027 [ICS,6]; G03F0007-028 [ICS,6]; G03F0007-033 [ICS,6]; G03F0007-30 [ICS,6]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-028 [I,C*]; G03F0007-028 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-30 [I,C*]; G03F0007-30 [I,A]

AB The composition contains a film-forming polymer, a photopolymn.
initiator, a photopolymerizable monomer, and an optional diazo
compound and the degree of swelling of the exposed area in a developing
solution is 25-200% upon exposure at an amount required to show 4 steps. The
composition may contain the polymer and a diazo compound. The presensitized
lithog. plate comprises a support with a hydrophilic surface coated with
the composition and is developed with a developing solution that makes the
degree

of swelling of the exposed area to 25-200%. The compns. shows good
developability, high resolution, and gum-removing properties.

ST photosensitive polymer lithog plate development; diazo compd
photopolymerizable compn lithog plate

IT Photoresists

(photosensitive composition containing film-forming polymer and diazo
compound for lithog. plate development)

IT Lithographic plates

(presensitized; photosensitive composition containing film-forming
polymer and diazo compound for lithog. plate development)

IT 99-96-7D, p-Hydroxybenzoic acid, polycondensation products with
diazodiphenylamine and aldehydes or ketones, mesitylenesulfonate or
hexafluorophosphate salts 3453-83-6D, Mesitylenesulfonic acid, salts
with diazodiphenylamine-p-hydroxybenzoic acid polycondensates
95823-72-6D, polycondensation products with p-hydroxybenzoic acid and
aldehydes or ketones, mesitylenesulfonate or hexafluorophosphate salts
RL: DEV (Device component use); MOA (Modifier or additive use); TEM
(Technical or engineered material use); USES (Uses)

(photosensitive composition containing film-forming polymer and diazo
compound for lithog. plate development)

IT 205248-51-7P 205248-52-8P 205248-53-9P

RL: DEV (Device component use); PNU (Preparation, unclassified); TEM
(Technical or engineered material use); PREP (Preparation); USES (Uses)

(photosensitive composition containing film-forming polymer and diazo
compound for lithog. plate development)

IT 29570-58-9, Dipentaerythritol hexaacrylate 41475-93-8 77001-81-1, UA
306H

RL: DEV (Device component use); TEM (Technical or engineered material
use); USES (Uses)

(photosensitive composition containing film-forming polymer and diazo
compound for lithog. plate development)

11/245136

IT 42573-57-9, 2,4-Bis(trichloromethyl)-6-(p-methoxystyryl)-s-triazine
RL: CAT (Catalyst use); USES (Uses)
(polymerization initiator; photosensitive composition containing
film-forming
polymer and diazo compound for lithog. plate development)

L18 ANSWER 16 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:134589 CAPLUS

DN 128:161004

ED Entered STN: 07 Mar 1998

TI Photoresist composition using novel photoacid
-generating resin

IN Aogo, Toshiaki; Sato, Kenichiro; Kodama, Kunihiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 62 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-039

ICS G03F007-00; G03F007-004; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 38

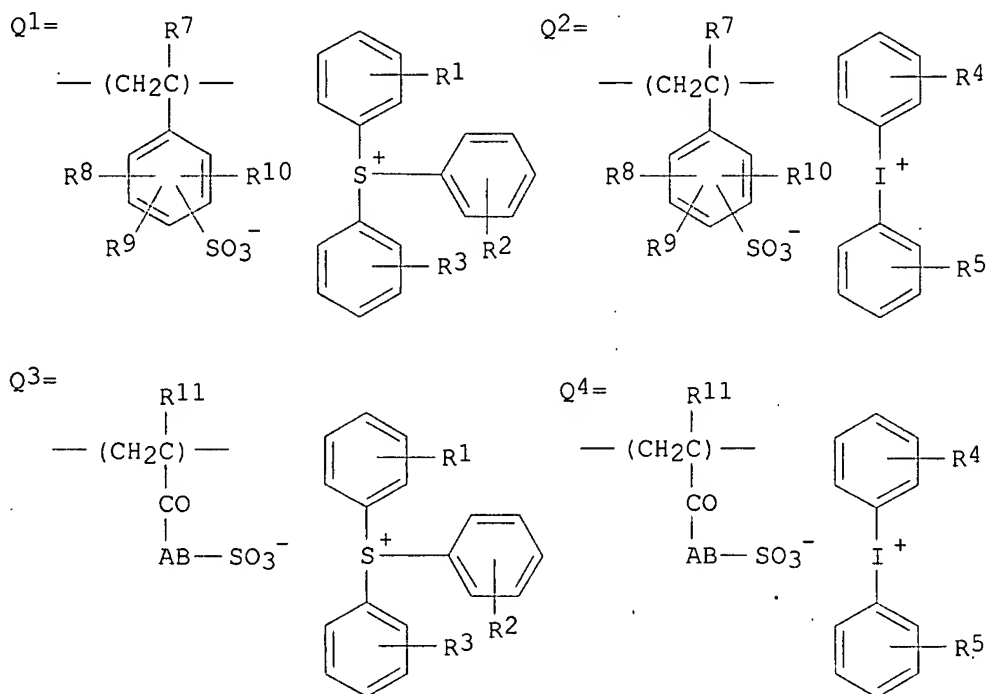
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 09325497	A	19971216	JP 1996-141965	19960604
	JP 3613491	B2	20050126		
	US 5945250	A	19990831	US 1997-868932	19970604
PRAI	JP 1996-141965	A	19960604		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 09325497	ICM	G03F007-039
	ICS	G03F007-00; G03F007-004; H01L021-027
	IPCI	G03F0007-039 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-004 [ICS,6]; H01L0021-027 [ICS,6]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
US 5945250	IPCI	B03C0001-492 [ICM,6]; C08F0002-46 [ICS,6]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
	NCL	430/270.100; 430/906.000; 430/914.000; 430/917.000; 430/919.000; 430/921.000; 522/031.000
	ECLA	G03F007/004D

GI



AB The title composition comprises a sulfonium or iodonium salt resin containing ≥ 1 repeating unit selected from structural units I-IV [R1-5 = H, OH, halo, alkyl, cycloalkyl, alkoxy; R7, R11 = H, halo, CN, alkyl; R8-10 = H, OH, halo, NO₂, CO₂H, alkyl, aralkyl, alkoxy; A = O; B = alkylene or arylene]. A pos.-working photosensitive composition may comprise a resin having groups which are decomposed by the action of acids to increase the solubility in alkaline developing solution and a resin having ≥ 1 of units I-IV and generating sulfonic acid upon receiving light. The pos.-working composition may contain (1) a low-mol.-weight acid-decomposable dissoln.-inhibitor

with mol. weight ≤ 3000 which has groups decomposable with a sulfonic acid-generating resin having ≥ 1 of units Q1-Q4 and of which the solubility in alkaline developing solution is increased by the action of acids and (2)

a resin insol. in water and soluble in alkaline aqueous solns. The composition shows high solubility in organic solvents, photosensitivity, and stability in the elapse of time after exposure and provides high quality resist patterns.

ST photoresist photoacid generator resin; sulfonium iodonium salt resin photoresist

IT Photoresists
(photoresist composition containing photoacid-generating resin)

IT 2695-37-6, Sodium 4-styrenesulfonate 4270-70-6, Triphenyl sulfonium chloride 5421-53-4, 4,4'-Bis(tert-butylphenyl)iodonium chloride 17332-73-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(photoresist composition containing photoacid-generating resin)

IT 201683-64-9P 201683-67-2P 201683-92-3P 201683-93-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(photoresist composition containing photoacid-generating resin)

11/245136

IT 201683-65-OP 201683-68-3P 202590-51-OP, Benzyl methacrylate-2-(N-acryloyl)amino-2-methylpropanesulfonic acid-methacrylic acid copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photoresist composition containing photoacid-generating resin)

IT 201683-71-8 201683-72-9 201683-73-0 201683-80-9 201683-82-1
201683-83-2 202590-44-1 202590-45-2 202590-47-4
202590-49-6 202590-50-9

RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist composition containing photoacid-generating resin)

L18 ANSWER 17 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:719619 CAPLUS

DN 128:28625

ED Entered STN: 14 Nov 1997

TI Positive-working photosensitive composition

IN Aoai, Toshiaki; Yamanaka, Tsukasa; Uenishi, Kazuya

PA Fuji Photo Film Co., Ltd., Japan

SO U.S., 34 pp., Cont.-in-part of U.S. Ser. No. 525,157, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM G03C001-492

INCL 430270100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5683856	A	19971104	US 1996-634529	19960418
	JP 08123030	A	19960517	JP 1994-252351	19941018
	JP 3317597	B2	20020826		
PRAI	JP 1994-252351	A	19941018		
	US 1995-525157	B2	19950908		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5683856	ICM	G03C001-492
	INCL	430270100
	IPCI	G03C0001-492 [ICM,6]; G03C0001-005 [ICM,6,C*]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]
	NCL	430/270.100; 430/326.000
JP 08123030	IPCI	G03F0007-039 [ICM,6]; G03F0007-004 [ICS,6]; G03F0007-028 [ICS,6]; H01L0021-027 [ICS,6]; H01L0021-02 [ICS,6,C*]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

AB A pos.-working photosensitive composition is disclosed, which comprises: (a) a resin which is insol. in water but soluble in an alkaline aqueous solution; (b) a compound which generates an acid upon irradiation with an active light or radiation; (c) a low-mol.-weight acid-decomposable dissoln.-inhibitive compound having a mol. weight of 3000 or less and containing a group decomposable with an acid, and which increases its solubility in an alkaline developer by the action of an acid; and (d) a resin containing a basic nitrogen atom and having a weight-average mol. weight of 2000 or more. Another pos.-working photosensitive composition is disclosed, which

comprises: (1) a compound which generates an acid upon irradiation with active light or radiation; (2) a resin having a group which undergoes decomposition by an acid whereby increasing its solubility in an alkaline developer; and (3) a resin

containing a basic nitrogen atom and having a weight-average mol. weight of 2000 or

more. The pos.-working photosensitive composition of the present invention can easily and properly inhibit acid diffusion and acid deactivation on the surface thereof with time between the exposure and the heat treatment, keep the dissoln.-inhibiting effect exerted by the dissoln.-inhibitive compound and exhibit a good profile, a high sensitivity, and a high resolving power.

ST pos photoresist photoacid generator dissoln inhibitor;
basic resin pos photoimaging compn

IT Positive photoresists

(containing basic resins and acid-decomposable dissoln.-inhibitive compds.)

IT Integrated circuits

Lithographic plates

(pos. photoimaging materials containing basic resins and acid-decomposable dissoln.-inhibitive compds. for manufacture of)

IT Photoimaging materials

(pos.; containing basic resins and acid-decomposable dissoln.-inhibitive compds.)

IT 177786-95-7P 177799-92-7P 199442-71-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pos.-working photoresist compns. for lithog. plate and integrated circuit manufacture containing)

IT 24979-74-6, p-Hydroxystyrene-styrene copolymer 32335-20-9 66003-76-7
66003-78-9 124737-97-9 124738-06-3 129674-22-2, tert-
Butoxycarbonyloxystyrene-p-hydroxystyrene copolymer 133685-94-6,
o-Hydroxystyrene-p-hydroxystyrene copolymer 138089-25-5,
2,2-Bis(tert-butoxycarbonyloxyphenyl)propane 142096-70-6 142952-62-3,
tert-Butoxycarbonylmethyloxystyrene-p-hydroxystyrene copolymer
149642-75-1 153698-46-5 153698-67-0 171429-59-7,
p-Acetoxystyrene-p-hydroxystyrene copolymer 176109-33-4 177786-96-8
177786-97-9 177786-98-0 177787-00-7 177787-02-9 177787-03-0
177799-93-8 177799-95-0

RL: TEM (Technical or engineered material use); USES (Uses)

(pos.-working photoresist compns. for lithog. plate and integrated circuit manufacture containing)

IT 10445-91-7DP, reaction products with poly(p-hydroxystyrene)
24979-70-2DP, Poly(p-hydroxystyrene), reaction products with
4-chloromethylpyridine 27029-76-1P, m-Cresol-p-cresol-formaldehyde
copolymer 112504-03-7P 114651-28-4P 153698-58-9P 153698-65-8P
153698-68-1P 153698-69-2P 153698-70-5P 153840-05-2P 159293-87-5P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation and use in pos.-working photoresist compns. for lithog. plate and integrated circuit manufacture)

IT 153233-60-4

RL: TEM (Technical or engineered material use); USES (Uses)

(preparation and use in pos.-working photoresist compns. for lithog. plate and integrated circuit manufacture)

L18 ANSWER 18 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:712364 CAPLUS

DN 125:342912

ED Entered STN: 04 Dec 1996

TI Photoresist solution for color filter

IN. Urano, Toshoshi; Hino, Etsuko

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

11/245136

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-033

ICS G02B005-20; G03F007-004; G03F007-027; G03F007-028; H01J029-32

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 37, 73

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08220760	A	19960830	JP 1995-22772	19950210
PRAI	JP 1995-22772		19950210		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08220760	ICM	G03F007-033
	ICS	G02B005-20; G03F007-004; G03F007-027; G03F007-028; H01J029-32
	IPCI	G03F0007-033 [ICM,6]; G02B0005-20 [ICS,6]; G03F0007-004 [ICS,6]; G03F0007-027 [ICS,6]; G03F0007-028 [ICS,6]; H01J0029-32 [ICS,6]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G02B0005-20 [I,C*]; G02B0005-20 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-028 [I,C*]; G03F0007-028 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; H01J0029-18 [I,C*]; H01J0029-32 [I,A]

AB In the title resist solution containing a coloring material, a photopolymn. initiator system, an ethylenic compound, 5-50% (based on the coloring material) organic polymer dispersant, and a solvent, the dispersant is a copolymer of Ph-containing and carboxylic acid-containing monomers, the coloring material is dispersed as grains with average grain size $\leq 0.2 \mu\text{m}$ and contains 2-25% adsorbed surfactant. A color filter resist solution for manufacturing a black matrix and a red, green, or blue color

material are also claimed. The resist solns. show improved developability, transparency, resistance to solvent, and adhesion to substrate.

ST color filter photoresist soln; black matrix filter photoresist soln

IT Optical filters

(photoresist solution for color filters)

IT Resists

(photo-, photoresist solution for color filters)

IT 4687-94-9, SP 1509 25086-15-1, Methacrylic acid-methyl methacrylate copolymer 29570-58-9, Dipentaerythritol hexaacrylate 51821-72-8, Isobutyl methacrylate-methacrylic acid-methyl methacrylate copolymer 52831-04-6, Acrylic acid- α -methylstyrene-styrene copolymer 53814-24-7, Ripoxy SP 5003 56361-55-8, A-BPE-4 65697-21-4, Benzyl methacrylate-methacrylic acid copolymer 86280-89-9, Ripoxy SP 4010 181224-39-5 181224-45-3 182062-63-1, p-Hydroxyphenyl methacrylate-methacrylic acid-methyl methacrylate copolymer 182062-65-3 182293-66-9

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(photoresist solution for color filters)

L18 ANSWER 19 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:641118 CAPLUS

DN 125:288787

ED Entered STN: 31 Oct 1996

TI Composition for fabricating color filter and color filter fabrication method

ck'd
translation
machine
too

11/245136

IN Urano, Toshoshi; Hino, Etsuko
PA Mitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G02B005-20

ICS G03F007-004; G03F007-027; G03F007-40; H04N009-07; H04N009-12

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08194107	A	19960730	JP 1995-4896	19950117
PRAI	JP 1995-4896		19950117		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08194107	ICM	G02B005-20
	ICS	G03F007-004; G03F007-027; G03F007-40; H04N009-07; H04N009-12
	IPCI	G02B0005-20 [ICM,6]; G03F0007-004 [ICS,6]; G03F0007-027 [ICS,6]; G03F0007-40 [ICS,6]; H04N0009-07 [ICS,6]; H04N0009-12 [ICS,6]

AB The composition comprises a polymer obtained from 2-50 of epoxy(meth)acrylate-containing monomer and/or 10-80 mol.% of Ph group-containing monomer. The filter

is useful for color televisions, liquid crystal displays and cameras.

ST photoresist compn color filter fabrication

IT Optical filters

(composition for fabricating color filter and color filter fabrication method)

IT Lithography

Resists

(photo-, composition for fabricating color filter and color filter fabrication method)

IT 52831-04-6 65697-21-4 181224-39-5 181224-45-3 182062-63-1
182062-65-3 182293-66-9

RL: DEV (Device component use); USES (Uses)

(photoresist composition for fabricating color filter)

L18 ANSWER 20 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:367650 CAPLUS

DN 125:45124

ED Entered STN: 26 Jun 1996

TI Positive-working photosensitive composition

IN Aoai, Toshiaki; Yamanaka, Tsukasa; Uenishi, Kazuya

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 78 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 708368	A1	19960424	EP 1995-114054	19950907
	EP 708368	B1	19990630		
	R: BE, DE				
	JP 08123030	A	19960517	JP 1994-252351	19941018
	JP 3317597	B2	20020826		

11/245136

PRAI JP 1994-252351 A 19941018

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 708368	ICM	G03F007-004
	IPCI	G03F0007-004 [ICM,6]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
JP 08123030	ECLA	G03F007/004D
	IPCI	G03F0007-039 [ICM,6]; G03F0007-004 [ICS,6]; G03F0007-028 [ICS,6]; H01L0021-027 [ICS,6]; H01L0021-02 [ICS,6,C*]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

AB A pos.-working photosensitive composition for the production of lithog. plates comprises (a) a resin which is insol. in water but soluble in an alkaline aqueous solution, (b) a compound which generates an acid upon irradiation with active

light, (c) a low-mol.-weight acid-decomposable dissoln.-inhibitive compound having a mol. weight of 3000 or less, containing a group decomposable with an acid, and being capable of increasing its solubility in an alkaline developer

by the action of an acid, and (d) a resin containing a basic nitrogen atom and having a weight-average mol. weight of 2000 or more. The pos.-working photosensitive composition of the present invention can easily and properly inhibit acid diffusion and acid deactivation on the surface thereof with time between the exposure and the heat treatment, keep the dissoln. inhibiting effect exerted by a dissoln.-inhibitive compound, and exhibit a good profile, a high sensitivity, and a high resolving power.

ST pos photosensitive compn lithog plate; semiconductive device pos photoresist

IT Lithographic plates
Semiconductor devices

(photosensitive compns. containing alkali-soluble resins, photosensitive acid generators, acid-decomposable dissoln. inhibitors, and nitrogen-containing resins for preparation of)

IT Electric circuits
(integrated, photosensitive compns. containing alkali-soluble resins, photosensitive acid generators, acid-decomposable dissoln. inhibitors, and nitrogen-containing resins for preparation of)

IT Resists
(photo-, pos.-working, containing alkali-soluble resins, photosensitive acid generators, acid-decomposable dissoln. inhibitors, and nitrogen-containing resins)

IT 24979-74-6, Styrene-p-hydroxystyrene copolymer 32335-20-9 66003-76-7, Diphenyliodonium triflate 66003-78-9, Triphenylsulfonium triflate 124737-97-9 124738-06-3 129674-22-2, 4-(tert-Butoxycarbonyloxy)styrene-p-hydroxystyrene copolymer 133685-94-6, o-Hydroxystyrene-p-hydroxystyrene copolymer 138089-25-5, 2,2-Bis(tert-butoxycarbonyloxyphenyl)propane 142096-70-6 149642-75-1, p-Hydroxystyrene-4-vinylpyridine copolymer 152238-74-9 153698-46-5, Triphenylsulfonium pentafluorobenzenesulfonate 153698-54-5 153698-55-6 153698-59-0 153698-62-5 153698-63-6 153698-67-0 160457-12-5 171429-59-7, p-Acetoxystyrene-p-hydroxystyrene copolymer 176109-33-4 177786-96-8 177786-97-9 177786-98-0 177786-99-1, 4-Hydroxystyrene-4-dimethylaminostyrene copolymer 177787-00-7 177787-02-9 177787-03-0 177787-04-1 177787-05-2 177787-06-3 177787-07-4 177787-08-5 177787-09-6 177799-93-8 177799-95-0 178067-74-8

RL: TEM (Technical or engineered material use); USES (Uses)

11/245136

(lithog. plate manufacture and resist pattern formation using pos.-working photosensitive comps. containing)

IT 153698-58-9P 153698-65-8P 153698-68-1P 153698-69-2P 153698-70-5P
153840-05-2P 159293-87-5P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use as dissoln.-inhibitive compound for pos.-working photosensitive comps.)

IT 27029-76-1P, m-Cresol-p-cresol-formaldehyde copolymer 112504-03-7P
114651-28-4P 177786-95-7P 177799-92-7P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in pos.-working photosensitive comps. for lithog. plate preparation)

L18 ANSWER 21 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1995:787356 CAPLUS
DN 123:183533
ED Entered STN: 13 Sep 1995
TI Photoresist composition and photosensitive lithographic printing plate using it
IN Kojima, Noryoshi; Hatsutori, Ryoji; Matsubara, Shinichi; Sasaki, Mitsuru; Matsuo, Fumyuki
PA Konishiroku Photo Ind, Japan; Mitsubishi Kagaku KK
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM G03F007-115
ICS G03F007-00; G03F007-022
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07175221	A	19950714	JP 1993-342964	19931215
PRAI JP 1993-342964		19931215		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 07175221	ICM	G03F007-115
	ICS	G03F007-00; G03F007-022
	IPCI	G03F0007-115 [ICM,6]; G03F0007-09 [ICM,6,C*]; G03F0007-00 [ICS,6]; G03F0007-022 [ICS,6]
	IPCR	G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-09 [I,C*]; G03F0007-115 [I,A]

AB The title composition contains a compound having sp. surface area ≥ 500 m²/g. The title composition may contain a reaction products from polycondensation products (phenols and halo-containing aldehydes or ketones) and o-quinonediazide compds.

ST photoresist compn lithog printing plate

IT Lithographic plates
(photoresist composition and photosensitive lithog. printing plate using it)

IT Phenolic resins, uses
Polyethers, uses
Silica gel, uses
Zeolites, uses
RL: DEV (Device component use); USES (Uses)
(photoresist composition and photosensitive lithog. printing plate using it)

IT Clays, uses

11/245136

RL: DEV (Device component use); USES (Uses)
(activated, photoresist composition and photosensitive lithog. printing plate using it)

IT Phenolic resins, uses
RL: DEV (Device component use); USES (Uses)
(novolak, photoresist composition and photosensitive lithog. printing plate using it)

IT Resists
(photo-, photoresist composition and photosensitive lithog. printing plate using it)

IT 1344-28-1, Alumina, uses 7440-44-0, Carbon, uses
RL: DEV (Device component use); USES (Uses)
(active; photoresist composition and photosensitive lithog. printing plate using it)

IT 7631-86-9, Silica, uses
RL: DEV (Device component use); USES (Uses)
(anhydrous; photoresist composition and photosensitive lithog. printing plate using it)

IT 159995-97-8, Aluminum silicon oxide
RL: DEV (Device component use); USES (Uses)
(gel; photoresist composition and photosensitive lithog. printing plate using it)

IT 20546-03-6D, reaction products with Benzaldehyde-resorcinol copolymer 35464-74-5, Formaldehyde, polymer with 3-methylphenol, 4-methylphenol and phenol 41698-74-2D, Benzaldehyde-resorcinol copolymer, reaction products 1,2-naphthoquinone-2-diazido-5-sulfonate 68541-74-2, p-Diazodiphenylamine hexafluorophosphate-paraformaldehyde copolymer 68584-99-6D, Acetone-pyrogallol copolymer 1, 2-naphthoquinonediazido-5-sulfonate, fluorinated 77833-95-5, Acrylonitrile-ethyl acrylate-p-hydroxyphenyl methacrylamide-methacrylic acid copolymer
RL: DEV (Device component use); USES (Uses)
(photoresist composition and photosensitive lithog. printing plate using it)

L18 ANSWER 22 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:703499 CAPLUS

DN 123:183517

ED Entered STN: 27 Jul 1995

TI Photosensitive composition

IN Murata, Masahisa; Tsuji, Shigeo; Matsumura, Tomoyuki; Konuma, Tomohito

PA Mitsubishi Kagaku KK, Japan; Konishiroku Photo Ind

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-033

ICS G03F007-00; G03F007-021; G03F007-038; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI.	JP 07128853	A	19950519	JP 1993-159696	19930629
PRAI	JP 1993-159696		19930629		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
-----	----	-----
JP 07128853	ICM	G03F007-033
	ICS	G03F007-00; G03F007-021; G03F007-038; H01L021-027
	IPCI	G03F0007-033 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-021 [ICS,6]; G03F0007-016 [ICS,6,C*]; G03F0007-038 [ICS,6]; H01L0021-027 [ICS,6]; H01L0021-02 [ICS,6,C*]
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-00

[I,C*]; G03F0007-00 [I,A]; G03F0007-033 [I,C*];
 G03F0007-033 [I,A]; G03F0007-038 [I,C*]; G03F0007-038
 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

AB The photosensitive composition contains a diazo resin and an
 alkali-soluble polymer containing 2-50 mol% CH₂:C(R₁)COO(CH₂)nOH derivative
 unit (R₁
 = H, Me; n = 3-10) and 1-10 mol% CH₂:C(R₂)COO(CH₂)mMe derivative unit (R₂ = H,
 Me; m = 2-6). The alkali-soluble polymer may also contain 40-80 mol%
 CH₂:C(R₃)COOR₄ derivative unit (R₃ = H, Me; R₄ = H, Me, Et). The
 photosensitive composition are used in lithog.
 ST photoresist neg acrylate lithog; photosensitive compn
 neg acrylate lithog; resist neg acrylate lithog
 IT Resists
 (photo-, neg.-working, neg.-working photoresists
 containing alkali-soluble acrylic polymer for lithog.)
 IT 125785-09-3 167687-15-2
 RL: TEM (Technical or engineered material use); USES (Uses)
 (neg.-working photoresists containing alkali-soluble acrylic polymer
 for lithog.)

L18 ANSWER 23 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 1995:698801 CAPLUS
 DN 123:97945
 ED Entered STN: 26 Jul 1995
 TI Photosensitive composition
 IN Kawamura, Koichi; Takita, Satoshi; Kawamura, Yoshitaka; Akiyama, Keiji
 PA Fuji Photo Film Co., Ltd., Japan
 SO Ger. Offen., 30 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM G03F007-039
 ICA C08J003-28; C08L033-14; C08F120-68; C08F120-70
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 25, 35, 76

FAN.CNT 1

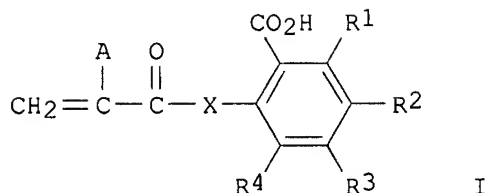
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4426141	A1	19950126	DE 1994-4426141	19940722
	JP 07036184	A	19950207	JP 1993-183022	19930723
	JP 3136227	B2	20010219		
PRAI	JP 1993-183022	A	19930723		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 4426141	ICM	G03F007-039
	ICA	C08J003-28; C08L033-14; C08F120-68; C08F120-70
	IPCI	G03F0007-039 [ICM,6]; C08J0003-28 [ICA,6]; C08L0033-14 [ICA,6]; C08L0033-00 [ICA,6,C*]; C08F0120-68 [ICA,6]; C08F0120-70 [ICA,6]; C08F0120-00 [ICA,6,C*]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]; C08K0005-00 [I,C*]; C08K0005-105 [I,A]; C08K0005-20 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
	ECLA	C08K005/105+L33/14; C08K005/20+L33/14; G03F007/023; G03F007/039
JP 07036184	IPCI	G03F0007-033 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-039 [ICS,6]; H01L0021-027 [ICS,6]; H01L0021-02 [ICS,6,C*]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]; C08K0005-00 [I,C*]; C08K0005-105 [I,A]; C08K0005-20 [I,A];

G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

GI



AB The title composition comprises a high mol. weight compound which is manufactured by polymerization of a polymerizable compound of the formula I [A = H, halogen, alkyl;

X = O, NH, N-R5 (R5 = alkyl), R1-R4 = A, aryl, OR6, O2CR7, NHCOR8, NHCONHR9, O2CNHR10, CO2R11, CONHR12, COR13, CONR14R15, CN, CHO, 2 of them may combine to form a ring; R6-R15 = alkyl, aryl; ≥ 1 of R1-R4 is H]. The composition can be used as a photoresist for manufacturing lithog. printing plates, integrated circuits, or photomasks. A method of producing an image with the above compound is also described.

ST lithog printing plate photosensitive compn; integrated circuit photosensitive compn; photomask photosensitive compn

IT Lithographic plates
Photomasks

(Photosensitive composition)

IT Electric circuits
(integrated, Photosensitive composition)

IT Resists
(photo-, Photosensitive composition)

IT 165323-45-5P 165323-47-7P 165323-49-9P 165323-51-3P 165323-52-4P
165323-54-6P 165323-56-8P 165323-57-9P 165323-58-0P
165323-59-1P 165323-60-4P 165323-61-5P

RL: POF (Polymer in formulation); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(Photosensitive composition)

IT 165323-44-4P, N-(2-Carboxy-4-chlorophenyl)methacrylamide 165323-46-6P,
N-(2-Carboxy-4-bromophenyl)methacrylamide 165323-48-8P,
N-(2-Carboxy-4-chlorophenyl)acrylamide 165323-50-2P,
(2-Carboxy-4,6-dichlorophenyl)methacrylate

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(Photosensitive composition)

L18 ANSWER 24 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:485842 CAPLUS

DN 122:303028

ED Entered STN: 13 Apr 1995

TI Alkali developable photosensitive compositions

IN Nakatsuka, Masao

PA Okamoto Kagaku Kogyo Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

11/245136

LA Japanese
 IC ICM G03F007-027
 ICS G03F007-00; G03F007-029; G03F007-038; G03F007-30; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

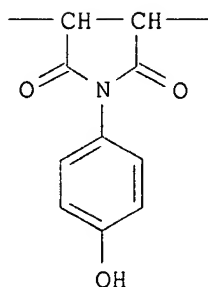
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07005684	A	19950110	JP 1991-188021	19910702
	JP 3045820	B2	20000529		
PRAI	JP 1991-188021		19910702		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 07005684	ICM	G03F007-027
	ICS	G03F007-00; G03F007-029; G03F007-038; G03F007-30; H01L021-027
	IPCI	G03F0007-027 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-029 [ICS,6]; G03F0007-038 [ICS,6]; G03F0007-30 [ICS,6]; H01L0021-027 [ICS,6]; H01L0021-02 [ICS,6,C*]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-30 [I,C*]; G03F0007-30 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

GI



AB The title compns. contain an alkali-soluble copolymer from monomer units I. and/or CH₂CR₁CONHC₆H₄OH-p (R₁ = H, Me) and CH₂CR₂AOB (R₂ = H, Me; A = p-phenylene, CO; B = glycidyl, epithiopropyl), a photocation-generating agent, and a vinyl ether compound. The compns. show good developability with aqueous alkali solns. containing no organic solvent and

high

photosensitivity. Thus, a composition containing a copolymer from N-(4-hydroxyphenyl)maleimide, glycidyl methacrylate, and Me methacrylate, 4-morpholino-2,5-dibutoxybenzenediazonium hexafluorophosphate, and CH₂:CHO(CH₂)₂O(CH₂)₂OCH₂:CH₂ was coated on an Al substrate to give a presensitized lithog. plate.

ST hydroxyphenylmaleimide acrylamide copolymer photosensitive compn; vinyl ether glycidyl compd photoresist

IT Lithographic plates

(alkali-developable photosensitive resin composition)

IT Resists

(photo-, alkali-developable photosensitive resin composition)

IT 160679-57-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

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(alkali-developable photosensitive resin composition)
IT 110-75-8, 2-Chloroethyl vinyl ether 764-99-8 52411-04-8
160679-58-3 160679-59-4 160679-60-7
160679-61-8 163006-76-6

RL: TEM (Technical or engineered material use); USES (Uses)
(alkali-developable photosensitive resin composition)

L18 ANSWER 25 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1994:689660 CAPLUS
DN 121:289660
ED Entered STN: 10 Dec 1994
TI Photoresist composition and presensitized lithographic plate
IN Matsumura, Tomoyuki; Nakai, Hideyuki; Kamimura, Jiro; Murata, Masahisa
PA Konishiroku Photo Ind, Japan; Mitsubishi Chemical Industries Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-021
ICS G03F007-00; G03F007-027; G03F007-028; G03F007-11
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

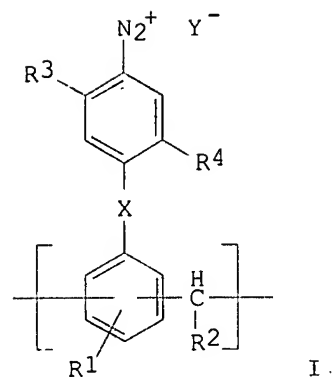
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05323596	A	19931207	JP 1992-152827	19920520
PRAI	JP 1992-152827		19920520		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 05323596	ICM	G03F007-021
	ICS	G03F007-00; G03F007-027; G03F007-028; G03F007-11
	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]; G03F0007-00 [ICS,5]; G03F0007-027 [ICS,5]; G03F0007-028 [ICS,5]; G03F0007-11 [ICS,5]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-028 [I,C*]; G03F0007-028 [I,A]; G03F0007-11 [I,C*]; G03F0007-11 [I,A]

GI



AB The title composition contains diazo resin having ≥ 1 structural repeating unit I (R1 = H, alkyl, alkoxy, OH, carboxy ester or carboxyl; R2

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= OH, group having ≥ 1 alc. or phenolic OH; R3, R4 = H, alkyl, alkoxy; X = NH, O, S; Y = anion). The title lithog. plate has on its hydrophilic surface-bearing support, a photosensitive layer which contains the above photoresist composition. The lithog. plate shows superior developability and printing performance.

ST photoresist compn diazo resin; presensitized lithog plate
photoresist compn

IT Lithographic plates
(diazo resin-containing photoresist composition using)

IT Resists
(photo-, composition, containing diazo resin)

IT Azo compounds
RL: TEM (Technical or engineered material use); USES (Uses)
(polymers, photoresist composition containing, for lithog. plate)

IT 9070-36-4P, p-Diazodiphenylamine sulfate-paraformaldehyde copolymer
157912-86-2P 157912-87-3P 157912-88-4P 157912-89-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, photoresist composition containing, for presensitized lithog. plate)

L18 ANSWER 26 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1993:202077 CAPLUS

DN 118:202077

ED Entered STN: 14 May 1993

TI Photoresist for lithographic platemaking

IN Kawachi, Ikuo; Aoshima, Keitaro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-021

ICS G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

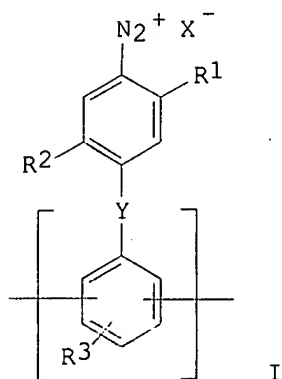
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 04190361	A	19920708	JP 1990-321823	19901126
	JP 2627578	B2	19970709		
PRAI	JP 1990-321823		19901126		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 04190361	ICM	G03F007-021
	ICS	G03F007-004
	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]; G03F0007-004 [ICS,5]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]

GI



AB In the title photoresist composition containing a diazo resin and a polymer, the diazo resin contains the structural units (I), Ar, and -CR₄R₅- [R₁ = H, halo, alkyl, alkoxy; R₂ = H, halo, alkyl, alkoxy; R₃ = H, alkyl, alkoxy, alkoxy carbonyl; X⁻ = anion; Y = NH, O, S; Ar = divalent aromatic hydrocarbon or heterocycle residue not containing CO₂H, phenolic OH, sulfonic acid group, sulfinic acid group, phosphoric acid group, and phosphonic acid group; R₄ = CO₂H, group containing CO₂H; R₅ = H, alkyl]. The photoresist is useful in lithog.

ST photoresist diazo resin lithog plate

IT Lithographic plates

(photopolymerizable composition, diazo resin)

IT Resists

(photo-, diazo resin and polymer for)

IT 141815-67-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of)

IT 146757-65-5DP, reaction product with dibutyl naphthalenesulfonic acid

147143-03-1DP, reaction product with dibutyl naphthalenesulfonic acid

147143-04-2DP, reaction product with dodecyl benzenesulfonic acid

147143-05-3DP, reaction product with dioctyl naphthalenesulfonic acid

147143-06-4DP, reaction product with hexafluorophosphate

RL: PREP (Preparation)

(preparation of, for photoresist composition)

IT 59592-92-6P, Acrylonitrile-2-hydroxyethylmethacrylate-methylmethacrylate-

methacrylic acid copolymer 127115-35-9P 131663-17-7P 131690-07-8P

141789-06-2P 141789-07-3P

RL: PREP (Preparation)

(preparation of, photoresist composition containing)

IT 16919-18-9D, reaction product with bis(methoxymethyl)diphenyl ether,

glyoxylic acid, and methoxydiphenylaminediazonium sulfate 25377-92-8D,

reaction products with diazophenylamines, glyoxylic acid, and formaldehyde

or dimethylolmethylanisole 27176-87-0D, reaction products with

formaldehyde, methoxydiphenylaminediazonium sulfate, phenoxyethanol, and

terephthalic acid 140946-22-1D, reaction product with

aminobenzenediazonium sulfate, benzenedimethanol, and glyoxylic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, photoresist composition from)

L18 ANSWER 27 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1993:113116 CAPLUS

DN 118:113116

ED Entered STN: 19 Mar 1993

TI Chemically-resistant positive-working resist for presensitized lithographic plates

11/245136

IN Tomita, Koji; Nakai, Hideyuki; Ishii, Nobuyuki; Sasaki, Mitsuru; Nakamura, Junko

PA Konica K. K., Japan; Mitsubishi Kasei K. K.

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-023

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04062556	A	19920227	JP 1990-172660	19900702
PRAI	JP 1990-172660		19900702		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 04062556	ICM	G03F007-023
	IPCI	G03F0007-023 [ICM,5]
	IPCR	G03F0007-023 [I,C*]; G03F0007-023 [I,A]

AB The title photoresist employs as binder a polymer containing the structural units [CR1R2CR3(CONR4X1Y1OH)] [R1,2 = H, halo, alkyl, aryl, CO2H (or salt); R3 = H, halo, alkyl, aryl; R4 = H, alkyl, aryl, aralkyl; Y1 = aromatic; X1 = divalent organic; m = 0-5], [CHCR5(CO2Xn2Y2OH)] [R5 = H, halo, alkyl, aryl; Y2 = alkylene; X2 = divalent organic; n = 0, 1], and vinylpyrrolidone structure. The photoresist has good chemical resistance, and when used in lithog. printing plates using UV ink printing, the plates have a good service life.

ST lithog plates pos photoresist

IT Lithographic plates

(pos. working resist, chemical-resist)

IT Resists

(photo-, pos.-working, acrylic, chemical-resistant)

IT 146056-58-8 146056-59-9 146056-60-2

RL: USES (Uses)

(pos. working resist, for lithog. plates)

L18 ANSWER 28 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1993:113115 CAPLUS

DN 118:113115

ED Entered STN: 19 Mar 1993

TI Chemically-resistant phtotresist composition

IN Tomita, Koji; Nakai, Hideyuki; Ishii, Nobuyuki; Sasaki, Mitsuru; Nakamura, Junko

PA Konica K. K., Japan; Mitsubishi Kasei K. K.

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-023

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04062555	A	19920227	JP 1990-172659	19900702
PRAI	JP 1990-172659		19900702		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 04062555	ICM	G03F007-023

IPCI G03F0007-023 [ICM,5]

IPCR G03F0007-023 [I,C*]; G03F0007-023 [I,A]

AB The title photoresist employs as binder a polymer containing structural unit [CR1R2CR3(CONR4XN-Y-OH)] [R1,2 = H, halo, alkyl, aryl, CO2H2 (or its salt); R3 = H, halo, alkyl, aryl; R4 = H, alkyl, aryl, aralkyl; Y = aromatic group; X = divalent organic group; n = 0-5] and structural unit based on vinylpyrrolidone. The above polymer may also contain structural units selected from [CH2CR5(CO2R6-X1)] [R5 = H, halo, alkyl, aryl; R6 = alkylene, arylene; X1 = electron-withdrawing group], [CH2CR4(O2C-R8-X2)] [R7 = H, halo, alkyl, aryl; R8 = alkylene, arylene; X2 = electron-withdrawing group], and (CH2CR4X3) [R9 = H, halo, alkyl, aryl; X3 = electron-withdrawing group]. The pos. working photoresist is useful in presensitized lithog. plates and is resistant to the plate cleaner used when using a UV ink.

ST photoresist lithog plate binder

IT Resists
(photo-, chemical-resistant)

IT Lithographic plates
(presensitized, pos.-working photoresist for)

IT 146056-61-3 146056-62-4 146056-63-5
RL: USES (Uses)
(binder resin, for pos. working photoresist)

L18 ANSWER 29 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:501031 CAPLUS

DN 117:101031

ED Entered STN: 05 Sep 1992

TI Photoresist for lithographic plate preparation

IN Kawachi, Ikuo; Kamiya, Akihiko

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-021

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

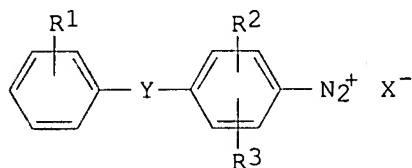
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03214161	A	19910919	JP 1990-9237	19900118
PRAI JP 1990-9237		19900118		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 03214161	ICM	G03F007-021
	IPCI	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]

GI



AB In the title photoresist based on an aromatic azo resin and an organic solvent-soluble polymer, the aromatic diazo resin is obtained by reacting a compound having the formula I [R1 = H, alkyl, alkoxy, OH, a carboxy ester

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group; R2 = H, alkyl, alkoxy; R3 = H, alkyl, alkoxy; X- = an anion; Y = NH, O, S] with a compound having the formula E(A)x(B)y(CHR4OR5)m [A = CO2H, a group containing CO2H; B = SO3H, a group containing SO3H; E = a residue obtained by removing (m + x + y) H from PhOH, PhSH, a phenol ether, an aromatic thioether, an aromatic heterocycle, an aromatic hydrocarbon, or an organic acid amide; R4 = H, alkyl, aryl, heterocyclyl; R5 = H, alkyl, C1-4 acyl, etc.; m = 1-0; x, y = 0-3; (x + y) = 1-6] in a strong acid medium.

ST photoresist lithog platemaking; diazo resin photoresist lithog

IT Lithographic plates
(photoresists containing diazo resins for preparation of)

IT Resists
(photo-, diazo resin-based)

IT 101-64-4 5840-10-8
RL: USES (Uses)
(coupling of diazotized, diazo resins from)

IT 101-54-2, 4-Aminodiphenylamine
RL: USES (Uses)
(coupling of diazotized, diazo resins from, for photoresist compns.)

IT 142493-00-3 142493-01-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazonium salts, diazo resins from, for photoresists)

IT 123065-60-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminodiphenylamine, diazo resins from, for photoresist compns.)

IT 142492-99-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminomethoxydiphenylamine, diazo resins from)

IT 142493-02-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminomethoxydiphenylamine, diazo resins from, for photoresist compns.)

IT 612-20-4, 2-Hydroxymethylbenzoic acid 142493-03-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized diazodiphenylamine, diazo resins from)

IT 89-25-8D, condensation products with diazo resins
RL: USES (Uses)
(for polymer mol. weight determination)

IT 72063-23-1
RL: USES (Uses)
(photoresists containing)

L18 ANSWER 30 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:117245 CAPLUS

DN 116:117245

ED Entered STN: 20 Mar 1992

TI Positive-working photosensitive composition, recording material produced therewith and process for the production of relief images.

IN Elsaesser, Andreas; Frass, Hans Werner; Mohr, Dieter

PA Hoechst A.-G., Germany

SO Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW

DT Patent

LA German

IC ICM G03F007-023
ICS G03F007-039

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

11/245136

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 440086	A2	19910807	EP 1991-100860	19910124
	EP 440086	A3	19911211		
	EP 440086	B1	19951025		
	R: CH, DE, FR, GB, IT, LI, NL				
	DE 4003025	A1	19910808	DE 1990-4003025	19900202
	US 5376496	A	19941227	US 1991-648143	19910130
	CA 2035406	A1	19910803	CA 1991-2035406	19910131
	BR 9100436	A	19911022	BR 1991-436	19910201
	JP 04213459	A	19920804	JP 1991-32214	19910201
	JP 2761482	B2	19980604		
PRAI	DE 1990-4003025	A	19900202		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 440086	ICM	G03F007-023
	ICS	G03F007-039
	IPCI	G03F0007-023 [ICM,5]; G03F0007-039 [ICS,5]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
DE 4003025	ECLA	G03F007/004D; G03F007/023; G03F007/039
	IPCI	G03F0007-023 [ICM,5]; C08L0057-10 [ICS,5]; C08L0057-00 [ICS,5,C*]; C08K0005-28 [ICS,5]; C08K0005-00 [ICS,5,C*]; G03F0007-40 [ICS,5]; B41M0005-26 [ICS,5]; B44F0001-00 [ICS,5]; C08L0033-24 [ICA,5]; C08L0033-14 [ICA,5]; C08L0033-00 [ICA,5,C*]; C08L0025-18 [ICA,5]; C08L0025-00 [ICA,5,C*]; C08L0035-00 [ICA,5]; H05K0003-06 [ICA,5]; H05K0003-46 [ICA,5]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
US 5376496	IPCI	G03F0007-023 [ICM,5]; G03F0007-004 [ICS,5]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
	NCL	430/165.000; 430/191.000; 430/192.000; 430/193.000; 430/270.100; 430/907.000; 430/914.000
CA 2035406	ECLA	G03F007/004D; G03F007/023; G03F007/039
	IPCI	G03F0007-039 [ICM,5]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
BR 9100436	IPCI	G03F0007-12 [ICM,5]; G03F0007-04 [ICS,5]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
JP 04213459	IPCI	G03F0007-023 [ICM,5]; G03F0007-023 [ICS,5]; G03F0007-039 [ICS,5]; H01L0021-027 [ICS,5]; H01L0021-02 [ICS,5,C*]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

AB In the title composition comprising (a) a H2O-insol. aqueous alkaline solution-soluble

polymer binder; and (b) a 1,2-quinonediazide and/or a combination of (1) a photogenerator of a strong acid and (2) a compound with ≥ 1 acid-splittable C-O-C bond, the binder is a polymer with mol. weight 5000-100,000, phenolic OH-content .apprx.1-15 mmol/g, and a $-\text{CH}_3-\text{nXn}$ group-content ≥ 0.1 mmol/g [$n = 1-3$; $X = \text{halogen}$]. The material has improved resistance to chems. and heat, and can be used for printing plate production or photoresist production

ST photoresist photosensitive compn pos; printing plate
photosensitive compn

IT Printing plates
(photosensitive composition for)

IT Resists
(photo-, photosensitive composition for)

IT 139162-74-6 139162-75-7 139162-76-8 139162-77-9
139162-78-0 139162-79-1 139162-80-4 139162-81-5 139162-82-6
139162-83-7 139162-84-8 139162-85-9 139162-86-0 139162-88-2
139204-47-0 139204-49-2 139204-51-6

RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive composition containing)

L18 ANSWER 31 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:482287 CAPLUS

DN 115:82287

ED Entered STN: 23 Aug 1991

TI Development of photopolymerization initiator-containing
photosensitive material used in presensitized plates

IN Matsumura, Tomoyuki; Matsubara, Shinichi; Uehara, Masabumi; Fumiya,
Shinichi; Katahashi, Eriko

PA Konica Co., Japan; Mitsubishi Kasei Corp.

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-32

ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02251966	A	19901009	JP 1989-74393	19890327
	JP 2903159	B2	19990607		
PRAI	JP 1989-74393		19890327		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 02251966	ICM	G03F007-32
	ICS	G03F007-00
	IPCI	G03F0007-32 [ICM,5]; G03F0007-00 [ICS,5]
	IPCR	G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-031 [I,C*]; G03F0007-031 [I,A]; G03F0007-32 [I,C*]; G03F0007-32 [I,A]

AB The title development is carried out on a photosensitive material containing a polymerizable compound and a photopolymn. initiator using a developer solution essentially free of any organic solvents

at 25° and pH ≥ 12.0 .

ST photoresist presensitized plate diazo resin; photopolymn
initiator diazo resin photoresist; printing plate
photoresist diazo resin

IT Acrylic polymers, uses and miscellaneous
RL: USES (Uses)

11/245136

(photoresist composition using, development of)
IT Resists
(photo-, acrylic resin-based, diazo resin containing, development of)
IT. Printing plates
(presensitized, acrylic resin and diazo resin containing photoresist composition using)
IT 59592-92-6 77833-95-5
RL: USES (Uses)
(alkyl-soluble resin, photoresists composition containing)
IT 90216-38-9, Allyl methacrylate-methacrylic acid copolymer
135265-69-9
RL: USES (Uses)
(binder resin, for photosensitive material for presensitized plates)
IT 93641-24-8 126714-06-5 134621-72-0 135244-20-1
RL: USES (Uses)
(photopolymer. initiator, photoresists composition containing)
IT 15625-89-5
RL: USES (Uses)
(photoresists compns. containing)

L18 ANSWER 32 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:544115 CAPLUS

DN 111:144115

ED Entered STN: 14 Oct 1989

TI Photosensitive composition and presensitized lithographic plates

IN Tomiyasu, Hiroshi; Kobayashi, Yoshiko; Goto, Sei; Nakai, Hideyuki

PA Mitsubishi Kasei Corp., Japan; Konica Co.

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-72

ICS C08K005-43; C08L033-24; G03F007-08

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

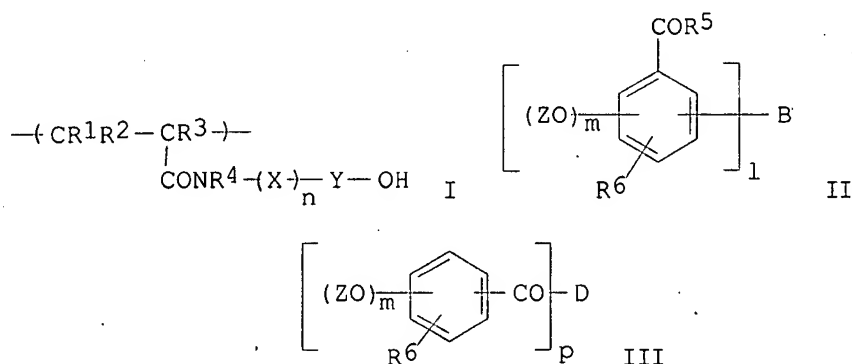
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 63314538	A	19881222	JP 1987-150463	19870617
PRAI JP 1987-150463		19870617		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 63314538	ICM	G03C001-72
	ICS	C08K005-43; C08L033-24; G03F007-08
	IPCI	G03C0001-72 [ICM,4]; C08K0005-43 [ICS,4]; C08K0005-00 [ICS,4,C*]; C08L0033-24 [ICS,4]; C08L0033-00 [ICS,4,C*]; G03F0007-08 [ICS,4]
	IPCR	G03C0001-72 [I,C*]; G03C0001-72 [I,A]; C08K0005-00 [I,C*]; C08K0005-43 [I,A]; C08L0033-00 [I,C*]; C08L0033-24 [I,A]; G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]

GI



- AB The title photosensitive composition comprises a resin having the repeating unit (I) [R₁, R₂ = H, halo, alkyl, aryl, CO₂H; R₃ = H, halo, alkyl, aryl; R₄ = H, alkyl, aryl, aralkyl; Y = aromatic; X = divalent organic group to link C atom in Y to N; n = 0-5] and an o-naphthoquinonediazidosulfonic acid ester, (II) or (III) [R₅ = alkyl, aryl, alkoxy; R₆ = H, alkyl, halo; Z = o-naphthoquinonediazidosulfonyl; B = 2-4-valent organic group capable of bonding to C of aromatic group; D = 2-4-valent organic group capable of bonding to CO; m = 1-3; e = 1-4; p = 2-4]. The title lithog. plate is obtained by coating a support with.
- ST photoresist naphthoquinonediazidosulfonate acrylamide; lithog plate naphthoquinonediazidosulfonate arylamide
- IT Resists
(photo-, naphthoquinone diazidosulfonic acid ester-type)
- IT Lithographic plates
(presensitized, naphthoquinone diazidosulfonic acid ester-type photoresist using)
- IT 115111-30-3 119417-67-3
RL: USES (Uses)
(binder, photoresist composition containing)
- IT 122728-30-7D, phenolic esters 122728-31-8D, phenolic esters
122730-00-1D, phenolic esters
RL: USES (Uses)
(of photoresist and presensitized plate using)

L18 ANSWER 33 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:544103 CAPLUS

DN 111:144103

ED Entered STN: 14 Oct 1989

TI Photosensitive lithographic plates

IN Kobayashi, Yoshiko; Tomiyasu, Hiroshi; Goto, Sei; Yamamoto, Takeshi

PA Mitsubishi Kasei Corp., Japan; Konica Co.

SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03C001-72

ICS G03F007-02

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63235936	A	19880930	JP 1987-69988	19870324
PRAI JP 1987-69988		19870324		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

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JP 63235936      ICM      G03C001-72
                  ICS      G03F007-02
                  IPCI     G03C0001-72 [ICM,4]; G03F0007-02 [ICS,4]
                  IPCR     G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-00
                           [I,C*]; G03F0007-00 [I,A]; G03F0007-023 [I,C*];
                           G03F0007-023 [I,A]
AB  The title plates comprise an anodized Al support and a pos.-working
    colored photosensitive layer comprising (A) o-
    naphthoguinonediazidesulfonate ester, (B) polymer of repeating unit
    -Cr1R2CR3(CONK4XnYOH)- (R1, R2 = H, halogen, alkyl, aryl, carboxy; R3 = H,
    halogen, alkyl, aryl; R4 = H, alkyl, aryl, aralkyl; Y = (un)substituted
    chrom. group; X = linking group between N and aromatic group; n = 0-5), and
    (C) colorant comprising ≥1 amino, hydroxy or carboxy group-containing
    anthraquinone, azo, azine, and triphenylmethane dyes and organic compds.
    reactive to the amino, hydroxy, or carboxy group or colorants comprising
    cationic or anionic dye and organic compds. capable of ion bonding with the
    dye. Such plates are resistant to colorant leaching by solvents and
    suitable for UV-curable inks.
ST  acrylamide polymer photoresist lithog plate; colorant pos
    working lithog plate; naphthoquinonediazide sulfonate photoresist
    pos working; solvent resistant photoresist lithog plate
IT  Lithographic plates
    (colorant leaching-resistant photoresists for fabrication of)
IT  Dyes, anthraquinone
    Dyes, azo
    Phenolic resins, uses and miscellaneous
    Urethane polymers, uses and miscellaneous
    RL: USES (Uses)
        (pos.-working photoresists containing, colorant
        leaching-resistant, for lithog. plates)
IT  Dyes
        (triphenylmethane, pos.-working photoresists containing, colorant
        leaching-resistant, for lithog. plates)
IT  Resists
        (photo-, pos.-working, colorant leaching-resistant)
IT  519-73-3
    RL: USES (Uses)
        (dyes, triphenylmethane, pos.-working photoresists containing,
        colorant leaching-resistant, for lithog. plates)
IT  27931-11-9P  115111-31-4P  121923-92-0P
    RL: IMF (Industrial manufacture); PREP (Preparation)
        (manufacture and polymerization of)
IT  28326-46-7D, Acrylonitrile-2-hydroxyethyl methacrylate copolymer, reaction
    products with C. I. Base Blue 3  50774-46-4  50774-48-6  55840-82-9D,
    C.I. Basic Blue 3, reaction products with hydroxyethyl
    methacrylate-acrylonitrile copolymer  68584-99-6  84135-66-0
    93641-24-8 115111-30-3  115111-33-6  117646-96-5  118037-76-6
    119417-67-3 120419-70-7  121913-23-3  121923-93-1
    RL: USES (Uses)
        (pos.-working photoresists containing, colorant
        leaching-resistant, for lithog. plates)
IT  6373-93-9
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with acetoxypheylacetyl chloride)
IT  81-48-1
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with acetyl chloride derivs.)
IT  920-46-7
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with aniline derivs.)
IT  1638-63-7, 2-Acetoxy-2-phenylacetyl chloride  103631-63-6,
    4-Morpholinepropanesulfonyl chloride  122791-91-7

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11/245136

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxyanthraquinone derivs.)
IT 83-55-6 123-30-8 67608-58-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methacryloyl chloride)
IT 3179-90-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with morpholinopropanesulfonyl chloride)
IT 128-83-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with octadecyl isocyanate)
IT 121940-49-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with sulfonyl chloride derivs.)
IT 121913-22-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with triphenylmethane derivs.)
IT 112-96-9, Octadecylisocyanate 120419-68-3
RL: USES (Uses)
(reaction, with aminoanthraquinone derivs.)
L18 ANSWER 34 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1988:483494 CAPLUS
DN 109:83494
ED Entered STN: 02 Sep 1988
TI Developer containing phenylpropanol and development method for
photosensitive resists
IN Nogami, Akira; Kyono, Minoru; Uehara, Masabumi; Nakano, Mieji
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C005-24
ICS G03F007-00
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 63085542 A 19880416 JP 1986-233055 19860929
PRAI JP 1986-233055 19860929
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 63085542 ICM G03C005-24
ICS G03F007-00
IPCI G03C0005-24 [ICM,4]; G03F0007-00 [ICS,4]
IPCR G03F0007-30 [I,C*]; G03F0007-30 [I,A]; G03F0007-32
[I,C*]; G03F0007-32 [I,A]
AB The title developer is an aqueous solution of 1-phenyl-1-propanol (I), an
anionic
surfactant, and an alkali. The development method involves removal of
nonimage part of the imagewise exposed H2O-insol. layer using the above
developer. The developer provides easy processing of lipophilic resist
material, without giving out unpleasant odor. Thus, a
photosensitive lithog. plate with layer containing acrylonitrile- Et
acrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid copolymer, PF6
salt of p-diazodiphenylamine-HCHO condensate, Jurimer AC10L, novolak
resin, and other agents was exposed and developed with a solution containing
diethanolamine 1.7, dibutyl naphthalenesulfonic acid Na salt 2.0, I 3.0,
Na2SO3 1.0, and H2O 92.3 g, with excellent results.
ST phenylpropanol photosensitive resist developer

11/245136

IT Phenolic resins, uses and miscellaneous
RL: USES (Uses)
(photoresist containing, developer containing phenylpropanol for)
IT Surfactants
(anionic, developer for photosensitive resist containing)
IT Resists
(photo-, lipophilic, phenylpropanol-containing developer for)
IT 93-54-9, 1-Phenyl-1-propanol
RL: USES (Uses)
(developer containing alkali and anionic surfactant and, for odorless
development of photosensitive resist)
IT 77833-95-5
RL: USES (Uses)
(photoresist containing, developer containing phenylpropanol for)

L18 ANSWER 35 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1987:524651 CAPLUS
DN 107:124651
ED Entered STN: 05 Oct 1987
TI Radiation-sensitive mixtures, radiation-sensitive recording materials, and
method of forming relief images
IN Schneller, Arnold; Schulze, Ralf; Sander, Juergen; Erbes, Kurt
PA Hoechst A.-G., Fed. Rep. Ger.
SO Ger. Offen., 11 pp.
CODEN: GWXXBX

DT Patent

LA German

IC ICM G03F007-10

ICS C08L033-06

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	DE 3528929	A1	19870226	DE 1985-3528929	19850813
	EP 212440	A2	19870304	EP 1986-110846	19860805
	EP 212440	A3	19880706		
	EP 212440	B1	19900613		
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	AT 53681	T	19900615	AT 1986-110846	19860805
	JP 62038454	A	19870219	JP 1986-187951	19860812
	US 4822719	A	19890418	US 1986-895906	19860813
PRAI	DE 1985-3528929	A	19850813		
	EP 1986-110846	A	19860805		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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DE 3528929	ICM	G03F007-10
	ICS	C08L033-06
	IPCI	G03F0007-10 [ICM,4]; C08L0033-06 [ICS,4]; C08L0033-00 [ICS,4,C*]
	IPCR	G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
EP 212440	IPCI	G03F0007-10 [ICM,4]; G03F0007-08 [ICS,4]
	IPCR	G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
AT 53681	IPCI	G03F0007-038 [ICM,5]; G03F0007-004 [ICS,5]; G03F0007-039 [ICS,5]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-038

[I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*];
G03F0007-039 [I,A]

JP 62038454 IPCI G03C0001-72 [ICM,4]; G03F0007-10 [ICS,4]
IPCR G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-004
[I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*];
G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039
[I,A]

US 4822719 IPCI G03C0001-495 [ICM,4]
IPCR G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-004
[I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*];
G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039
[I,A]

NCL 430/270.100; 430/175.000; 430/192.000; 430/196.000;
430/326.000

GI For diagram(s), see printed CA Issue.

AB Radiation-sensitive mixts. for the production of printing plates and dry
photoresists are composed of a water-insol., aqueous alkaline solution-soluble
polymer binder with phenolic OH groups in the side chain of the formula I
(R = H, halogen, CN, or C1-4 alkyl; R1, R2, R3 = H, halogen, alkyl,
alkoxy, alkoxycarbonyl, acyl, aryloxy, aroyl, or aralkyl; R4 = H or a
divalent organic group that is linked either inter- or intramol. with further
units of I and ≥80% of R4 are H; Z = O, NR5, OCH2CHOHCH2CO2,
OCH2CH2O, or OCH2CH2CO2 where R5 = H, alkyl, or aryl; and A = a
carbocyclic or heterocyclic aromatic ring system), a compound that forms a
strong acid under the effect of actinic radiation, and a compound with
≥1 acid-cleavable COC bond, whose soluble in a liquid developer is
increased through the effect of an acid. An electrolytically roughened
and anodized Al plate was coated with a composition containing Bu
methacrylate-hydroquinone monomethacrylate copolymer (binder), a trimethyl
orthoformate-4-oxa-6,6-bis(hydroxymethyl)octan-1-ol condensation product
(polymeric orthoester), 2-(4-styrylphenyl)-4,6-bis(trichloromethyl)-s-
triazine, crystal violet base, butanone, and EtOH, dried, exposed, and
developed to show a sensitivity that was 2- to 5-fold higher than
conventional mixts. containing naphthoquinonediazides.

ST offset lithog plate photosensitive compn; dry pos
photoresist photosensitive compn; photosensitive
compn polymer binder

IT Phenolic resins, uses and miscellaneous
RL: USES (Uses)
(novolak, photosensitive compns. containing, for fabrication of
offset lithog. plates and pos.-working dry-film photoresists)

IT Lithographic plates
(offset, photosensitive compns. for fabrication of)

IT Resists
(photo-, dry, photosensitive compns. for
fabrication of)

IT 9016-83-5
RL: USES (Uses)
(novolak, photosensitive compns. containing, for fabrication of
offset lithog. plates and pos.-working dry-film photoresists)

IT 64523-73-5 69432-41-3 69666-55-3 97746-56-0 97802-84-1
RL: USES (Uses)
(photosensitive compns. containing, for fabrication of offset
lithog. plates and pos.-working dry-film photoresists)

IT 110254-12-1 110254-14-3 110254-15-4 110254-16-5
RL: USES (Uses)
(photosensitive compns. containing, for fabrication of
pos.-working dry-film photoresists)

IT 110254-07-4 110254-08-5 110254-09-6 110254-10-9
110254-13-2
RL: USES (Uses)
(photosensitive compns. containing, for offset lithog. plate
fabrication)

11/245136

L18 ANSWER 36 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1986:635833 CAPLUS
DN 105:235833
ED Entered STN: 26 Dec 1986
TI Radiation-sensitive mixture, recording material produced from it, and
production of heat-resistant relief recordings
IN Schneller, Arnold; Geissler, Ulrich
PA Hoechst A.-G. , Fed. Rep. Ger.
SO Ger. Offen., 30 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03F007-08
ICS G03C001-52
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3442756	A1	19860528	DE 1984-3442756	19841123
	EP 184044	A2	19860611	EP 1985-114454	19851114
	EP 184044	A3	19880113		
	EP 184044	B1	19920115		
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	AT 71747	T	19920215	AT 1985-114454	19851114
	JP 61143747	A	19860701	JP 1985-261633	19851122
	JP 05088834	B	19931224		
	US 4699867	A	19871013	US 1985-800965	19851122
PRAI	DE 1984-3442756	A	19841123		
	EP 1985-114454	A	19851114		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3442756	ICM	G03F007-08
	ICS	G03C001-52
	IPCI	G03F0007-08 [ICM,4]; G03C0001-52 [ICS,4]
	IPCR	G03C0001-72 [I,C*]; G03C0001-72 [I,A]; C08K0005-00 [I,C*]; C08K0005-42 [I,A]; C08L0033-00 [I,C*]; C08L0033-00 [I,A]; C08L0033-02 [I,A]; C08L0033-24 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H05K0003-06 [I,C*]; H05K0003-06 [I,A]
EP 184044	IPCI	G03F0007-08 [ICM,4]; G03F0007-10 [ICS,4]
	IPCR	G03C0001-72 [I,C*]; G03C0001-72 [I,A]; C08K0005-00 [I,C*]; C08K0005-42 [I,A]; C08L0033-00 [I,C*]; C08L0033-00 [I,A]; C08L0033-02 [I,A]; C08L0033-24 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H05K0003-06 [I,C*]; H05K0003-06 [I,A]
AT 71747	IPCI	G03F0007-022 [ICM,5]
	IPCR	G03F0007-022 [I,C*]; G03F0007-022 [I,A]
JP 61143747	IPCI	G03C0001-72 [ICM,4]; G03F0007-08 [ICS,4]; C08K0005-42 [ICA,4]; C08K0005-00 [ICA,4,C*]; C08L0033-24 [ICA,4]; C08L0033-00 [ICA,4,C*]
	IPCR	G03C0001-72 [I,C*]; G03C0001-72 [I,A]; C08K0005-00 [I,C*]; C08K0005-42 [I,A]; C08L0033-00 [I,C*]; C08L0033-00 [I,A]; C08L0033-02 [I,A]; C08L0033-24 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A];

G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H05K0003-06 [I,C*]; H05K0003-06 [I,A]

US 4699867 IPCI G03C0001-60 [ICM,4]; G03C0001-54 [ICS,4]; G03C0001-52 [ICS,4,C*]

IPCR G03C0001-72 [I,C*]; G03C0001-72 [I,A]; C08K0005-00 [I,C*]; C08K0005-42 [I,A]; C08L0033-00 [I,C*]; C08L0033-00 [I,A]; C08L0033-02 [I,A]; C08L0033-24 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H05K0003-06 [I,C*]; H05K0003-06 [I,A]

NCL 430/192.000; 430/165.000; 430/191.000; 430/270.100

AB Pos.-working radiation-sensitive compns. are described for the production of relief images or resists of high resolution, good thermal stability, and resistance to solvents, etching solns., and galvanizing baths and that contain no components that upon heating give volatile products that deteriorate the image background. The compns. contain a water-insol., aqueous alkaline solution-soluble polymer binder and a 1,2-quinonediazide or a combination of a compound forming a strong acid upon exposure to actinic radiation and a compound having a cleavable COC bond whose solution in a liquid developer is increased by the effects of an acid. Thus, a photoresist composition containing an N-butoxymethylmethacrylamide-4-hydroxystyrene-styrene copolymer 8.9, 2,3,4-trihydroxybenzophenone tris(1,2-naphthoquinone-2-diazide-5-sulfonate) 1.1, butanone 45, and EtOH 45 parts was coated on a Si wafer, dried, imagewise exposed through a test mask, developed in an aqueous alkaline solution, and tempered to give a layer having outstanding resistance to heat and aggressive materials, such as HF plasma.

ST heat resistance relief photoimaging material; pos photoresist heat resistance

IT Lithographic plates
(photosensitive compns. for fabrication of, pos.-working, with improved heat resistance)

IT Resists
(photo-, pos.-working, with improved heat resistance)

IT Photoimaging compositions and processes
(relief, pos.-working, with improved heat resistance)

IT 105596-68-7
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist compns. containing, pos.-working, for heat-resistant images)

IT 105596-70-1 105596-71-2
RL: USES (Uses)
(photoresists compns. containing, pos.-working dry-film, for heat-resistant images)

IT 467-63-0 69666-55-3 97802-84-1 105596-66-5 105596-67-6 105596-69-8
RL: USES (Uses)
(photosensitive composition containing, pos.-working, for lithog. plates with improved heat resistance)

IT 5610-94-6 9016-83-5
RL: USES (Uses)
(photosensitive compns. containing, pos.-working, for heat-resistant photoresists and lithog. plates)

L18 ANSWER 37 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1980:435015 CAPLUS
DN 93:35015
ED Entered STN: 12 May 1984
TI Photoresist printing plates

11/245136

IN Nagatani, Toshio; Seino, Minoru; Okamoto, Toru; Eguchi, Chihiro
 PA Konishiroku Photo Industry Co., Ltd., Japan; Mitsubishi Chemical Industries Co., Ltd.
 SO Brit. UK Pat. Appl., 13 pp.
 CODEN: BAXXDU
 DT Patent
 LA English
 IC G03F007-00
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 Section cross-reference(s): 37, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2025646	A	19800123	GB 1979-24469	19790713
	GB 2025646	B	19830330		
	JP 55012974	A	19800129	JP 1978-86533	19780715
	JP 62062337	B	19871225		
	DE 2928396	A1	19800124	DE 1979-2928396	19790713
	DE 2928396	C2	19831215		
	DE 2928396	C3	19900913		
	FR 2431718	A1	19800215	FR 1979-18236	19790713
	FR 2431718	B1	19850726		
	US 5028512	A	19910702	US 1989-432354	19891103
PRAI	JP 1978-86533	A	19780715		
	US 1979-55741	B1	19790709		
	US 1981-299634	B1	19810904		
	US 1983-551508	B1	19831114		
	US 1984-682482	B1	19841217		
	US 1986-818991	B1	19860113		
	US 1986-937472	B1	19861202		
	US 1988-166803	B1	19880303		
	US 1989-339866	B3	19890414		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
GB 2025646	IC	G03F007-00
	IPCI	G03F0007-00
	IPCR	G03F0007-11 [I,C*]; G03F0007-11 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-09 [I,C*]; G03F0007-115 [I,A]
JP 55012974	IPCI	G03F0007-02; G03F0007-20
	IPCR	G03F0007-11 [I,C*]; G03F0007-11 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-09 [I,C*]; G03F0007-115 [I,A]
DE 2928396	IPCI	G03F0007-02
	IPCR	G03F0007-11 [I,C*]; G03F0007-11 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-09 [I,C*]; G03F0007-115 [I,A]
FR 2431718	IPCI	G03C0001-32; G03B0027-20; G03B0027-02 [C*]
	IPCR	G03F0007-11 [I,C*]; G03F0007-11 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-09 [I,C*]; G03F0007-115 [I,A]
US 5028512	IPCI	G03F0007-02 [ICM,4]; G03F0007-08 [ICS,4]; G03F0007-16 [ICS,4]
	IPCR	G03F0007-11 [I,C*]; G03F0007-11 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-09 [I,C*]; G03F0007-115 [I,A]
	NCL	430/300.000; 430/049.000; 430/144.000; 430/162.000; 430/167.000; 430/168.000; 430/169.000; 430/254.000; 430/257.000; 430/259.000; 430/269.000; 430/271.100; 430/273.100; 430/291.000; 430/302.000; 430/327.000; 430/935.000; 430/950.000; 430/961.000

AB The speed of evacuation in the manufacture of relief printing plates by the

vacuum contact process is improved by adhering a powdered plastic to the photoresist coating of the plate. Thus, a 0.3-mm-thick Al plate was subjected to depth mat treatment, washed, immersed 3 min in 2% K zirconium fluoride at 80°, washed, and dried. The treated plate was coated with 500 mg/m² (dry weight) of a composition comprising 5 g polyhydroxyphenyl 2-diazonaphthol-5-sulfonate in 80 g cyclohexane and dried. The plate was spray-coated with 70 particles 0.5-8-μ-diameter powdered m-cresol-HCHO resin/mm², and the coated plate was heated 5 s at 150° in an air bath. Vacuum contact was attained within 35 s by using the treated plate whereas a similar plate without a powdered coating required 124 s to achieve vacuum contact.

ST polymer powd photoresist coating; vacuum contact platemaking;
photoresist coating vacuum contact; printing plate relief manuf

IT Printing plates

(relief, photoresist-coated, coating of, with powdered polymer,
for improved evacuation)

IT 9000-11-7 9003-01-4 9003-35-4 9003-63-8 9004-65-3 25035-81-8
25086-36-6 25087-26-7 25767-39-9 26355-01-1 27136-15-8
59269-51-1 65595-71-3

RL: USES (Uses)

(coatings, powdered, on photoresist-coated relief printing
plates, for improved evacuation)

IT 31274-42-7 31303-63-6 62655-78-1 68541-74-2 68584-99-6
72063-24-2 74043-00-8

RL: TEM (Technical or engineered material use); USES (Uses)

(photoresist compns. containing, polymer powder coating of, for
improved evacuation during platemaking)

L18 ANSWER 38 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1980:164689 CAPLUS

DN 92:164689

ED Entered STN: 12 May 1984

TI Photosensitive polymers

IN Yamaguchi, Hiroyoshi; Iwaki, Akio; Kita, Noriyasu; Sasazawa, Tatsuya

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Brit. UK Pat. Appl., 14 pp.

CODEN: BAXXDU

DT Patent

LA English

IC C08F008-30; G03C001-71

CC 36-3 (Plastics Manufacture and Processing).

Section cross-reference(s): 74, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2018779	A	19791024	GB 1979-12930	19790412
	GB 2018779	B	19820922		
	JP 54135525	A	19791020	JP 1978-42940	19780412
	DE 2915154	A1	19791025	DE 1979-2915154	19790412
	US 4442196	A	19840410	US 1980-207087	19801114
PRAI	JP 1978-42940	A	19780412		
	US 1979-29350	A1	19790411		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
GB 2018779	IC	C08F008-30; G03C001-71
	IPCI	C08F0008-30; C08F0008-00 [I,C*]; G03C0001-71
	IPCR	C08F0008-00 [I,A]; C08F0002-46 [I,C*]; C08F0002-46 [I,A]; C08F0008-00 [I,C*]; C08F0008-30 [I,A]; C08F0008-32 [I,A]; C08F0290-00 [I,C*]; C08F0290-00 [I,A]; C08F0299-00 [I,C*]; C08F0299-00 [I,A]; G03F0007-008 [I,C*]; G03F0007-012 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; H01L0021-02 [I,C*];

H01L0021-027 [I,A]; H05K0003-00 [I,C*]; H05K0003-00 [I,A]

JP 54135525 IPCI G03C0001-71; C08F0008-14; C08F0008-00 [C*]; C08F0299-00; G03F0007-10; H01L0021-302; H01L0021-02 [C*]; H05K0003-06; C08F0002-48; C08F0002-46 [C*]

IPCR C08F0008-00 [I,A]; C08F0002-46 [I,C*]; C08F0002-46 [I,A]; C08F0008-00 [I,C*]; C08F0008-30 [I,A]; C08F0008-32 [I,A]; C08F0290-00 [I,C*]; C08F0290-00 [I,A]; C08F0299-00 [I,C*]; C08F0299-00 [I,A]; G03F0007-008 [I,C*]; G03F0007-012 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H05K0003-00 [I,C*]; H05K0003-00 [I,A]

DE 2915154 IPCI G03C0001-68

IPCR C08F0008-00 [I,A]; C08F0002-46 [I,C*]; C08F0002-46 [I,A]; C08F0008-00 [I,C*]; C08F0008-30 [I,A]; C08F0008-32 [I,A]; C08F0290-00 [I,C*]; C08F0290-00 [I,A]; C08F0299-00 [I,C*]; C08F0299-00 [I,A]; G03F0007-008 [I,C*]; G03F0007-012 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H05K0003-00 [I,C*]; H05K0003-00 [I,A]

US 4442196 IPCI G03C0001-52

IPCR C08F0008-00 [I,A]; C08F0002-46 [I,C*]; C08F0002-46 [I,A]; C08F0008-00 [I,C*]; C08F0008-30 [I,A]; C08F0008-32 [I,A]; C08F0290-00 [I,C*]; C08F0290-00 [I,A]; C08F0299-00 [I,C*]; C08F0299-00 [I,A]; G03F0007-008 [I,C*]; G03F0007-012 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H05K0003-00 [I,C*]; H05K0003-00 [I,A]

NCL 430/195.000; 430/197.000; 430/270.100; 522/149.000; 552/008.000

AB Photocurable polymeric esters [CH₂CRR₁]_n [R = ZZ1O2CC(CN):CHCH:CHC6H4N3-p; R₁ = H, halogen, or alkyl; Z = divalent organic group; Z₁ = optionally substituted phenylene or naphthylene], useful in the production of printing plates and printed circuits, are manufactured by treating a hydroxy functional polymers with p-azidocinnamylidene- α -cyanoacetic chloride (I) in the presence of a base. Thus, 20.4 g poly(p-hydroxystyrene) [24979-70-2] in 200 mL dry pyridine and 140 mL Me₂CO at 50° was treated by portionwise addition of 9.7 g I. The mixture was maintained 5 h at 50° before pouring into 2 L iced H₂O containing 60 mL concentrated HCl to precipitate the esterified polymer (II) [73361-56-5]

containing 25% I-esterified OH groups. II (10 g) was dissolved in 200 mL Et cellosolve and applied to a sand-blasted Al plate by a rotary applicator and dried. The coated plate gave a clear colored image when exposed 3 min 1 m from a 3 kW Hg lamp, with the photosensitivity of the coated plate being better than similar plates coated with poly(vinyl cinnamate), poly(vinyl α -cyanocinnamate), or poly(vinyl p-azidobenzoate).

ST printing plate photoresist polymer; photocuring azido polymer ester; hydroxy polymer azidocinnamylidenecyanoacetic ester; azidocinnamylidenecyanoacetic polymer ester photocuring; resist photocuring azido polyester; elec circuit photoresist polymer

IT Printing plates (photocurable polymeric azidocinnamylidenecyanoacetic esters for)

IT Resists (photo-, polymeric azidocinnamylidenecyanoacetic esters for)

IT Coating materials (photocurable, polymeric azidocinnamylidenecyanoacetic esters for)

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IT Electric circuits
(printed, photocurable polymeric
azidocinnamylidenecyanoacetic esters for)

IT 920-46-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation by, of aminonaphthol)

IT 760-93-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation by, of hydroxyaniline)

IT 591-27-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation of, by methacrylic anhydride)

IT 83-55-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation of, by methacryloyl chloride)

IT 24979-70-2P 24979-74-6P 56592-53-1P 57167-08-5P
73310-43-7P 73310-44-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(manufacture and esterification of, by azidocinnamylidenecyanoacetic acid
chloride)

IT 73361-52-1P 73361-53-2P 73361-54-3P 73361-55-4P
73361-56-5P 73361-57-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(manufacture and photochem. crosslinking of)

IT 27931-11-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture and polymerization of)

IT 14473-49-5P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture and polymerization of, with Me methacrylate)

L18 ANSWER 39 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1979:620361 CAPLUS

DN 91:220361

ED Entered STN: 12 May 1984

TI Photosensitive resin compositions

IN Iwaki, Akio; Kita, Noriyasu; Kurita, Yoshio; Yamazaki, Atsuo; Seino,
Minoru

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC G03C001-71; G03F007-02; H05K003-06

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 54098614	A	19790803	JP 1978-589	19780109
	JP 57043890	B	19820917		
PRAI	JP 1978-589	A	19780109		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 54098614	IC	G03C001-71; G03F007-02; H05K003-06
	IPCI	G03C0001-71; G03F0007-02; H05K0003-06; C08L0061-20 [ICA]; C08L0061-00 [ICA,C*]

AB Photosensitive resin compns. contain a diazo resin and a polymer
containing 1-80 mol % OH group-containing aromatic monomer units. The
addition of the
phenolic resin improves the storage stability of the resin compns. as well

11/245136

as the mech. strength of the relief images prepared from the resin comps. The resin comps. are useful for printing plates or photoresists . Thus, a diazo resin (hexafluorophosphate salt) 0.5, N-(p-hydroxyphenyl)methacrylamide-2-hydroxyethyl methacrylate-Me methacrylate-methacrylic acid copolymer 5.0, Jurimer AC20L 0.05, Victoria Pure Blue BOH 0.1g, and Me Cellosolve 100 mL were mixed and coated on an Al support to give a presensitized plate having excellent storage stability and durability.

ST photosensitive diazo resin printing plate; photoresist
diazo resin

IT Acrylic polymers, uses and miscellaneous

RL: USES (Uses)

(photosensitive diazo resin containing, for lithog.)

IT Resists

(photo-, photosensitive diazo resin comps. for)

IT Lithographic plates

(presensitized, photosensitive diazo resin comps. for)

IT 1325-85-5 2390-60-5 9004-57-3 25035-02-3 25751-21-7

72063-22-0 72063-23-1 72063-24-2 72063-25-3

72103-87-8

RL: USES (Uses)

(photosensitive diazo resin composition containing, for lithog. plates and photoresists)

IT 4065-45-6D, reaction products with diazo resins 7790-98-9D, reaction products with diazo resins 16941-11-0D, reaction products with diazo resins

RL: USES (Uses)

(photosensitive resin comps. containing, for lithog.)

L18 ANSWER 40 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1978:434193 CAPLUS

DN 89:34193

ED Entered STN: 12 May 1984

TI Light-sensitive mass

IN Kurita, Yoshio; Iwaki, Akio

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Ger. Offen., 39 pp.

CODEN: GWXXBX

DT Patent

LA German

IC G03C001-68

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2733005	A1	19780126	DE 1977-2733005	19770721
	DE 2733005	B2	19810129		
	DE 2733005	C3	19811105		
	JP 53012984	A	19780206	JP 1976-86875	19760721
	JP 56005983	B	19810207		
	GB 1580959	A	19801210	GB 1977-30745	19770721
PRAI	JP 1976-86875	A	19760721		

CLASS

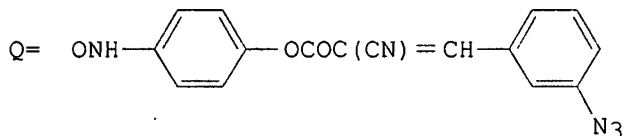
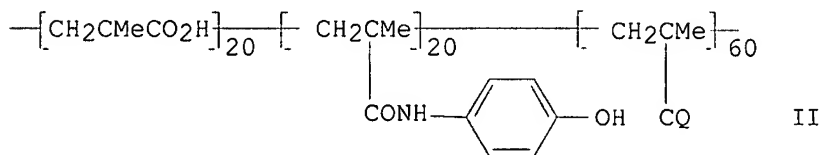
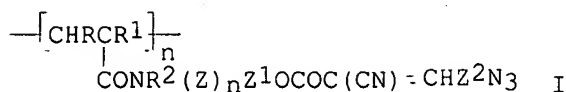
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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DE 2733005	IC	G03C001-68
	IPCI	G03C0001-68
	IPCR	C08F0008-00 [I,A]; C08F0008-00 [I,C*]; C08F0008-30 [I,A]; C08F0290-00 [I,C*]; C08F0290-00 [I,A]; C08F0299-00 [I,C*]; C08F0299-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-008 [I,C*]; G03F0007-012 [I,A]
JP 53012984	IPCI	C08F0008-00; C08F0299-00; G03C0001-71

IPCR C08F0008-00 [I,A]; C08F0008-00 [I,C*]; C08F0008-30 [I,A]; C08F0290-00 [I,C*]; C08F0290-00 [I,A]; C08F0299-00 [I,C*]; C08F0299-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-008 [I,C*]; G03F0007-012 [I,A]

GB 1580959 IPCI C08F0008-30; C08F0008-00 [C*]; G03C0001-71
IPCR C08F0008-00 [I,A]; C08F0008-00 [I,C*]; C08F0008-30 [I,A]; C08F0290-00 [I,C*]; C08F0290-00 [I,A]; C08F0299-00 [I,C*]; C08F0299-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-008 [I,C*]; G03F0007-012 [I,A]

GI



AB Light-sensitive compns. for use as photoresists and in printing plate preparation contain the light-sensitive polymer I (R = H, alkyl, CO₂H; R¹ = H, halo, alkyl; R² = H, alkyl, aryl, aralkyl; Z = a divalent group having a N bound to the aromatic ring of Z¹; Z¹, Z² = arylene; n = 0 or 1). The polymer has a high sensitivity, an advantageous storage stability, and excellent film-forming characteristics. Thus, a solution containing II, prepared

by treating a p-hydroxymethacrylanilide-methacrylic acid copolymer with m-azido-α-cyanocinnomoyl chloride, 10, a HCHO novolak resin 3 g, and Victoria Blue Base F.4.R 60 mg was coated on a manifold support (Cu foil on a support), imagewise exposed in contact with a neg. original in a vacuum frame for 2 min at 90 cm, and developed in an aqueous solution

containing 5 wt

% Na phosphate and 3 wt% 2-PrOH to give a pos. relief image. The plate was subsequently etched in a 40% FeCl₃ solution to give a printed circuit.

ST polymeric azide photoresist

IT Acrylic polymers, uses and miscellaneous

RL: USES (Uses)

(azide group-containing, photosensitive, for photoresists and printing plate fabrication)

IT Printing plates

(photopolymerizable compns. containing azide group-containing acrylic polymers for)

IT Azides

RL: USES (Uses)

(photosensitive compns. containing, for photoresists and printing plate fabrication)

IT Resists

11/245136

(photo-, azide group-containing acrylic polymers as)
IT Electric circuits
(printed, photopolymerizable compns. containing azide
group-containing acrylic polymers for)
IT 90-94-8 602-87-9 607-57-8 1325-85-5 1628-58-6 2390-60-5
9003-35-4 38107-56-1
RL: USES (Uses)
(photosensitive compns. containing azide group-containing acrylic
polymers and, for relief image formation)
IT 66795-53-7 66796-13-2 66796-14-3 66796-15-4
RL: USES (Uses)
(photosensitive compns. containing, for photoresists
and printing plate fabrication)

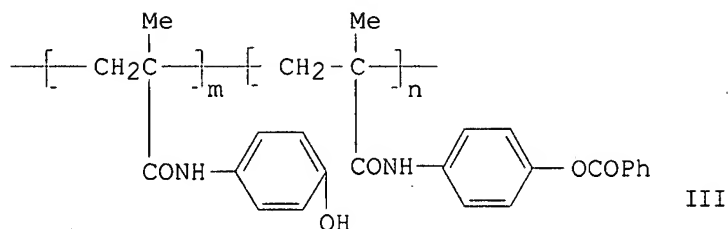
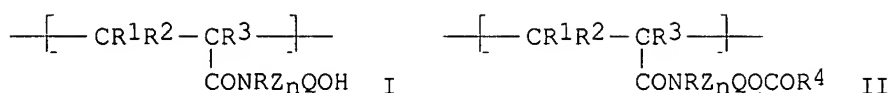
L18 ANSWER 41 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1976:470709 CAPLUS
DN 85:70709
ED Entered STN: 12 May 1984
TI Photosensitive composition for printing platemaking
IN Iwaki, Akio; Kurita, Yoshio
PA Konishiroku Photo Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC G03C001-72
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 51036128	A	19760326	JP 1974-109192	19740920
	JP 52034933	B	19770906		
PRAI	JP 1974-109192	A	19740920		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 51036128	IC	G03C001-72
	IPCI	G03C0001-72; G03F0007-08; C08L0033-00; H01L0021-312; H01L0021-02 [C*]; H05K0003-06 [ICA]
	IPCR	C08F0020-00 [I,C*]; C08F0020-00 [I,A]; C08F0020-52 [I,A]; C08L0033-00 [I,C*]; C08L0033-00 [I,A]; C08L0033-02 [I,A]; C08L0033-24 [I,A]; G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H01L0021-312 [I,A]; H05K0003-00 [I,C*]; H05K0003-00 [I,A]; H05K0003-06 [I,C*]; H05K0003-06 [I,A]

GI



AB Photosensitive comps. for printing platemaking containing an aromatic azido compound and a polymer containing the structural units (I; R = H, alkyl, Ph, aralkyl; R¹, R², = H, alkyl, carboxyl; R³=H, halo, alkyl; Z = divalent organic group; Q=phenylene, naphthylene n = 0, 1) and (II; R = H, alkyl, Ph, aralkyl; R¹, R² = H, alkyl, carboxyl; R³=H, halo, alkyl; R⁴=Ph, naphthyl; Z = divalent group; Q = phenylene, naphthylene). Thus, polymer III [mol. weight 20,000, m/n = 70/30] 4, 1-azidopyrene 0.8 g, and Victoria Pure Blue BOH (triphenylmethane dye, Hodogaya Chemical Co.) 40 mg were dissolved in 4:1 dioxane-DMF 100 ml, the solution was filtered, coated on a Zn plate and dried to give a presensitized plate. The plate was exposed for 2 min with a 3 kW high pressure Hg lamp through a transparent neg., immersed in 4% aqueous Na metasilicate for 1 min, then rinsed with H₂O. An acid-resistant pos. relief image was produced. On etching with DOW etching solution and rinsing a good letterpress printing plate was obtained.

ST letterpress plate presensitized; printing photoresist azido;
polymer azido photoresist printing

IT Printing plates
(letterpress, photoresist polymeric composition containing azidopyrene for)

IT 59964-18-0
RL: USES (Uses)
(photoresist composition containing azidopyrene and, for letterpress printing plate preparation)

IT 36171-39-8
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist composition containing, for letterpress printing plate preparation)

L18 ANSWER 42 OF 42 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1975:586375 CAPLUS

DN 83:186375

ED Entered STN: 12 May 1984

TI Photosensitive resin composition

IN Kawada, Hiroo; Iwama, Hideaki; Yumiki, Keiichi; Kurita, Yoshio; Tokura, Hiroshi

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC G03C; B41C; B41D; C08F

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50055406	A	19750515	JP 1973-105950	19730921

11/245136

JP 52028401 B 19770726
PRAI JP 1973-105950 A 19730921

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 50055406	IC	G03C; B41C; B41D; C08F
	IPCI	G03C0001-68; B41C0003-06; B41C0003-00 [C*]; B41D0007-00; C08F0020-10; C08F0020-00 [C*]
	IPCR	G03C0001-72 [I,C*]; G03C0001-72 [I,A]; B41C0003-00 [I,C*]; B41C0003-06 [I,A]; B41D0007-00 [I,C*]; B41D0007-00 [I,A]; C08F0020-00 [I,C*]; C08F0020-00 [I,A]; C08F0020-10 [I,A]; C08F0020-52 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

AB Photosensitive compns. contain a polymer with the repeating structural unit -CRR1CR2(CONR3ZnZ1OH)- [R,R1 = H, alkyl, carboxyl; R2 = H, halo, alkyl; R3 = H, alkyl, Ph, aralkyl; Z = divalent organic moiety; Z1 = phenylene, naphthylene; n = 0, 1] and an o-naphthoquinonediazidosulfonic acid derivative photosensitizer. These materials are useful in printing platemaking and in pattern etching metals and ceramics. Thus, p-hydroxymethacrylanilide 177 and α,α' -azobisisobutyronitrile 1.64 g were dissolved in a 1:1 Me2CO-MeOH mixture 600 ml and then heated for 30 hr at 65° in a sealed tube with the air replaced with N. The reaction mixture was then poured into water 5 l. to give a polymer -CH2CMe(CONH-p-C6H4OH)-n (average mol. weight .apprx.48,000, n = 100). A

solution

consisting of the polymer 3 and 1,2-naphthoquinone-2-diazo-5-sulfonic acid Ph ester 1 g was dissolved in Me Cellosolve 80 ml and the resultant solution was coated on a sandblasted Al plate. The plate was exposed through a pos. original with a 3-kW high-pressure Hg lamp, dipped for 1 min in a 2% Na3PO4 solution and wiped with absorbent cotton. A pos. oleophilic relief image was obtained. When used in an offset printing press many copies were obtained with good print quality.

ST lithog plate hydroxymethacrylanilide photopolymer;

photoresist hydroxymethacrylanilide photopolymer

IT Resists

(photo-, photopolymerizable compns. containing hydroxymethacrylanilide polymer and naphthoquinonediazidosulfonic acid derivative photosensitizer for)

IT Lithographic plates

(photopolymerizable compns. for, containing hydroxymethacrylanilide polymer and naphthoquinonediazidosulfonic acid derivative photosensitizer)

IT Ceramic materials and wares

(photoresist compns. containing hydroxymethacrylanilide polymer and naphthoquinonediazidosulfonic acid derivative photosensitizer for)

IT 57167-08-5

RL: USES (Uses)

(photopolymerizable compns. containing phenyl naphthoquinonediazidosulfonate photosensitizer and, for lithog. plates and photoresists)

IT 23295-00-3

RL: USES (Uses)

(photosensitizer, for photopolymerizable compns. containing hydroxymethacrylanilide polymer and, for lithog. plates and photoresists)

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FILE 'CAPLUS' ENTERED AT 18:01:15 ON 26 JUL 2007

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L1 E WO-2005091072/PN
1 S E3

L2 FILE 'REGISTRY' ENTERED AT 18:03:50 ON 26 JUL 2007
1 S 865783-27-3

L3 FILE 'REGISTRY' ENTERED AT 18:04:24 ON 26 JUL 2007
1 S 19243-95-9/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY
L4 1 S 865783-28-4
L5 1 S 865783-29-5
L6 1 S 865783-30-8
L7 1 S 865783-31-9
L8 1 S 865783-34-2
L9 2 S 865783-35-3 OR 865783-36-4
L10 0 S 19243-95-9CRN
L11 372 S 19243-95-9/CRN

L12 FILE 'CAPLUS' ENTERED AT 18:07:32 ON 26 JUL 2007
503 S L11
L13 452 S L12 AND PHOTO?
L14 39 S L13 AND NEGATIV?
L15 413 S L13 NOT L14
L16 385 S L15 AND PLAT?
L17 1 S L15 AND POLYACRYLATE
L18 42 S L15 AND PHOTORESIST?

=> s 115 not 117 not 118
L19 370 L15 NOT L17 NOT L18

=> s 119 and (plating or bump)
88591 PLATING
11419 BUMP
L20 2 L19 AND (PLATING OR BUMP)

=> d all 1-20

L20 ANSWER 1 OF 2 CAPLUS .COPYRIGHT 2007 ACS on STN
AN 2002:15883 CAPLUS
DN 136:93517
ED Entered STN: 08 Jan 2002
TI Aluminum (alloy) support for lithographic plate and photosensitive
lithographic plate
IN Takada, Teruo
PA Mitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N003-03
ICS B41N001-08; B41N001-14; G03F007-00; G03F007-09; C25F003-04
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 38, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002002142	A	20020108	JP 2000-189314	20000623
PRAI	JP 2000-189314		20000623		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 2002002142 ICM B41N003-03
 ICS B41N001-08; B41N001-14; G03F007-00; G03F007-09;
 C25F003-04
 IPCI B41N0003-03 [ICM,7]; B41N0001-08 [ICS,7]; B41N0001-00
 [ICS,7,C*]; B41N0001-14 [ICS,7]; B41N0001-12
 [ICS,7,C*]; G03F0007-00 [ICS,7]; G03F0007-09 [ICS,7];
 C25F0003-04 [ICS,7]; C25F0003-00 [ICS,7,C*]
 IPCR G03F0007-09 [I,C*]; G03F0007-09 [I,A]; B41N0001-00
 [I,C*]; B41N0001-08 [I,A]; B41N0001-12 [I,C*];
 B41N0001-14 [I,A]; B41N0003-03 [I,C*]; B41N0003-03
 [I,A]; C25F0003-00 [I,C*]; C25F0003-04 [I,A];
 G03F0007-00 [I,C*]; G03F0007-00 [I,A]

AB The Al (alloy) support is that subjected to electrochem. surface
 roughening, e.g., electrolytic etching, and anodization and having
 $\geq 12 \mu\text{m}$ radius of curvature at the top of bumps and ≤ 1
 mg/dm² smut. Alternatively, the support with $\geq 12 \mu\text{m}$ radius of
 curvature at the top of bumps is that prepared from a surface-roughened Al
 (alloy) substrate having ≤ 1 mg/dm² smut by anodization. The
 lithog. plate involving the support and a photosensitive layer
 prevents a blanket in a lithog. printer from being stained.

ST aluminum alloy support photosensitive lithog plate; electrochem
 surface roughening aluminum lithog plate; anodization aluminum lithog
 plate; curvature radius bump electrolytic etching aluminum; smut
 removal electrolytic etching aluminum

IT Lithographic plates
 (aluminum (alloy) support having bumps with large radius of curvature
 for photosensitive lithog. plate)

IT Etching
 (electrochem.; for aluminum (alloy) support having bumps with large
 radius of curvature for photosensitive lithog. plate)

IT Anodization
 (for aluminum (alloy) support having bumps with large radius of
 curvature for photosensitive lithog. plate)

IT Etching
 (for removal of smut from aluminum (alloy) support for
 photosensitive lithog. plate)

IT Phenolic resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (novolak; aluminum (alloy) support having bumps with large radius of
 curvature for photosensitive lithog. plate)

IT 7429-90-5, Aluminum, processes 37321-70-3, JIS 1050
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); TEM (Technical or engineered material use); PROC (Process); USES
 (Uses)
 (aluminum (alloy) support having bumps with large radius of curvature
 for photosensitive lithog. plate)

IT 9003-01-4, Jurymer AC 10L 35464-74-5, m-Cresol-p-cresol-formaldehyde-
 phenol copolymer 68584-99-6 84135-66-0 134338-20-8,
 Acrylonitrile-ethyl acrylate-p-hydroxyphenylmethacrylamide-itaconic acid
 copolymer 136793-26-5, p-Diazodiphenylamine hexafluorophosphate-
 formaldehyde-p-hydroxybenzoic acid copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (aluminum (alloy) support having bumps with large radius of curvature
 for photosensitive lithog. plate)

IT 1310-73-2, Sodium hydroxide, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (aqueous, for removal of smut; in preparation of aluminum (alloy) support
 having bumps with large radius of curvature for photosensitive
 lithog. plate)

IT 21645-51-2, Aluminum hydroxide, processes
 RL: REM (Removal or disposal); PROC (Process)
 (smut, removal of; in preparation of aluminum (alloy) support having bumps

with large radius of curvature for photosensitive lithog.
plate)

L20 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1985:479526 CAPLUS
DN 103:79526
ED Entered STN: 07 Sep 1985
TI Support for lithog. plates
PA Konishiroku Photo Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B41N003-00
ICA C25F003-04
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60038194	A	19850227	JP 1983-147459	19830811
PRAI	JP 1983-147459		19830811		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 60038194	ICM	B41N003-00
	ICA	C25F003-04
	IPCI	B41N0003-00 [ICM,4]; C25F0003-04 [ICA,4]; C25F0003-00 [ICA,4,C*]
	IPCR	C25F0003-00 [I,C*]; C25F0003-04 [I,A]; B41N0003-00 [I,C*]; B41N0003-00 [I,A]; B41N0003-03 [I,C*]; B41N0003-03 [I,A]

AB A steel plate is electrolytically etched in an acid bath containing 3-500 g acid/L. The method provides an etched support for lithog. plates continuously with good workability and the lithog. plates thus obtained permit wide selection of developing methods and are chemical stable and durable during printing. Thus, a 0.17 mm steel plate was anodically defatted in 5% NaOH and then anodically etched in 5% H2SO4. After Cr plating and coating with a diazo photosensitive composition, the plate was sensitometrically exposed and developed in 4% Na metasilicate. The obtained lithog. plate was resistant to rubbing with aqueous iso-PrOH used for dampening and gave 2.5 + 10,5 good prints.

ST lithog steel support electrolytic etching

IT Lithographic plates

(steel supports for, electrolytically etched in acid bath)

IT Etching

(electrochem., of steel supports in acid bath for lithog. plates)

IT 64-19-7, uses and miscellaneous 7697-37-2, uses and miscellaneous
7727-43-7 12125-01-8

RL: USES (Uses)

(chromium plating solution containing chromic acid and; for
electrolytically etched steel supports for lithog. plates)

IT 55585-67-6

RL: USES (Uses)

(chromium plating solution containing, for electrolytically etched
steel supports for lithog. plates)

IT 111-42-2, uses and miscellaneous 122-99-6 6834-92-0 25417-20-3

RL: USES (Uses)

(developing solution containing, for diazo photosensitive lithog.
plates with electrolytically etched steel supports)

IT 1328-54-7 9003-01-4

RL: USES (Uses)

(diazo photosensitive composition containing, for lithog. plates with

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electrolytically etched steel supports)
IT 7440-47-3, uses and miscellaneous
RL: USES (Uses)
(electrolytically etched steel support plated with, for lithog. plates)
IT 9003-35-4 25053-88-7 25085-50-1 25086-36-6 41698-74-2
77833-95-5
RL: USES (Uses)
(photosensitive composition containing naphthoquinonediazidosulfonyl
chloride and, for lithog. plates with electrolytically etched steel
supports)
IT 3770-97-6
RL: USES (Uses)
(photosensitive composition containing novolak resin and, for lithog.
plates with electrolytically etched steel supports)
IT 9086-40-2D, esterified with naphthoquinonediazidosulfonyl chloride
25086-36-6D, esterified with naphthoquinonediazidosulfonyl chloride
41698-74-2D, esterified with naphthoquinonediazidosulfonyl chloride
RL: USES (Uses)
(photosensitive composition containing, for lithog. plates with
electrolytically etched steel supports)
IT 7664-93-9, uses and miscellaneous
RL: USES (Uses)
(steel support electrolytically etched in, for lithog. plates)
IT 12597-69-2, uses and miscellaneous
RL: USES (Uses)
(support, electrolytically etched in acid bath for lithog. plates)

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(FILE 'HOME' ENTERED AT 18:01:00 ON 26 JUL 2007)

FILE 'CAPLUS' ENTERED AT 18:01:15 ON 26 JUL 2007
E WO-2005091072/PN

L1 1 S E3

FILE 'REGISTRY' ENTERED AT 18:03:50 ON 26 JUL 2007

L2 1 S 865783-27-3

FILE 'REGISTRY' ENTERED AT 18:04:24 ON 26 JUL 2007

L3 1 S 19243-95-9/RN
SET NOTICE 1 DISPLAY
SET NOTICE LOGIN DISPLAY

L4 1 S 865783-28-4
L5 1 S 865783-29-5
L6 1 S 865783-30-8
L7 1 S 865783-31-9
L8 1 S 865783-34-2
L9 2 S 865783-35-3 OR 865783-36-4
L10 0 S 19243-95-9CRN
L11 372 S 19243-95-9/CRN

FILE 'CAPLUS' ENTERED AT 18:07:32 ON 26 JUL 2007

L12 503 S L11
L13 452 S L12 AND PHOTO?
L14 39 S L13 AND NEGATIV?
L15 413 S L13 NOT L14
L16 385 S L15 AND PLAT?
L17 1 S L15 AND POLYACRYLATE
L18 42 S L15 AND PHOTORESIST?
L19 370 S L15 NOT L17 NOT L18
L20 2 S L19 AND (PLATING OR BUMP)

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

282.23

314.70

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-65.52

-66.30

STN INTERNATIONAL LOGOFF AT 18:10:07 ON 26 JUL 2007